Montana Department of Public Health and Human Services

Children with Diabetes

A Resource Guide for Schools

MONTANA DIABETES PROJECT

American Diabetes Association®

Juvenile Diabetes Research Foundation

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The information contained in this guide is not intended to replace the advice of the child's medical provider.

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Diabetes In Montana

Diabetes Statistics in Montana:

Diabetes in Adults

- Diabetes is common among Montanans. In 2000, over 32,000 (4.9%) Montana adults aged 18 years and older had diagnosed diabetes.
- The prevalence of diabetes is considerably higher among Montana American Indians, 16% in 2001.

Complications and Mortality

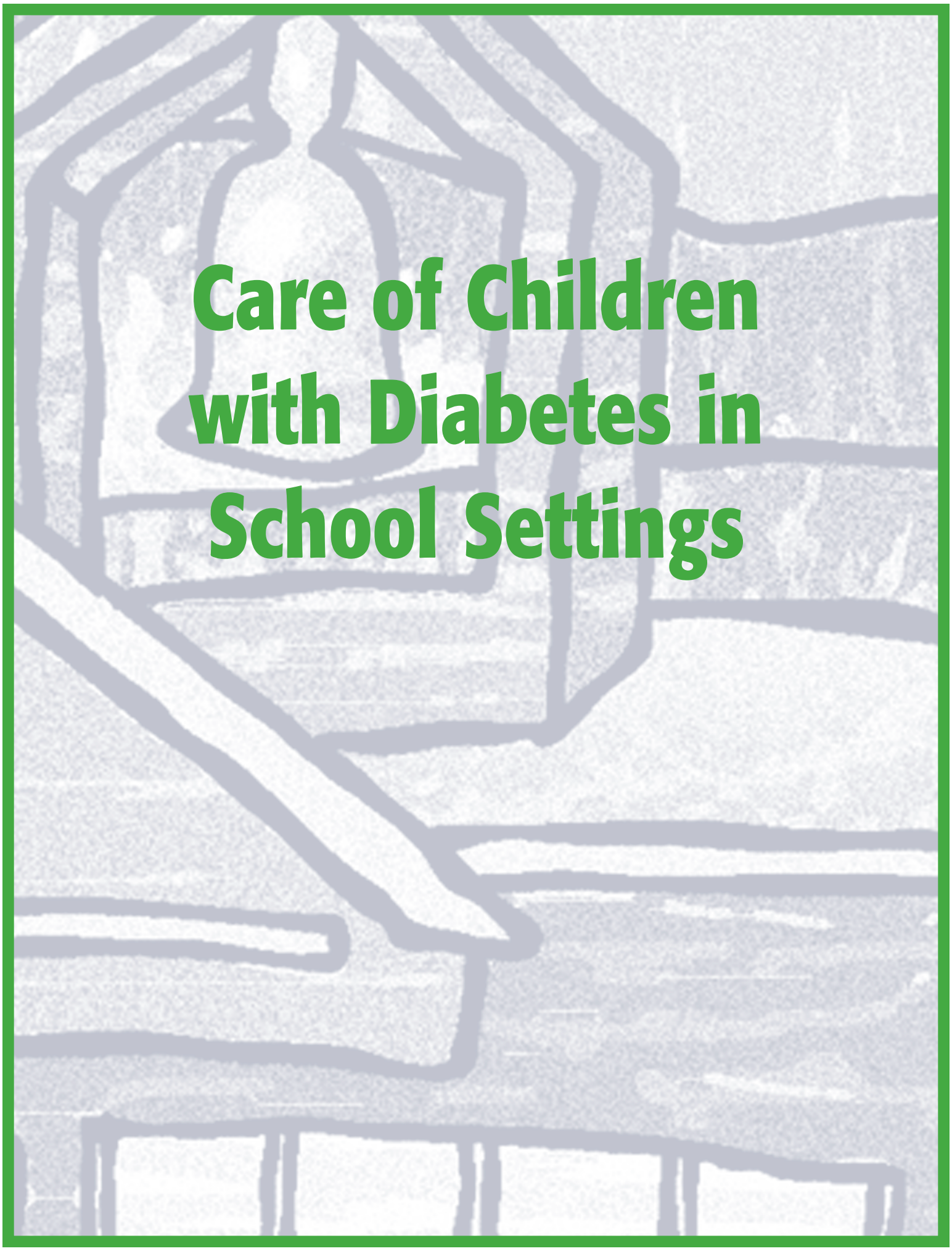
- Diabetes is the leading cause of lower extremity amputations, blindness, and kidney disease.
- Persons with diabetes are at a higher risk for developing heart disease compared to those without diabetes.
- In the 1990s diabetes was the 7th leading cause of death for Montanans overall and the 4th leading cause of death among American Indians.

Cost of Health Care

- In 1997, the average health care cost nationally for a person living with diabetes was over $10,000 per year.

Diabetes in Youth

- Based on national estimates, there are approximately 50 to 70 youth less than 18 years of age who develop diabetes each year.
- In 2001, there were 56 prevalent cases of diabetes and 8 newly diagnosed cases of diabetes among American Indian youth from five reservations (four in Montana and one in Wyoming).
- In 2001, 50% of the newly diagnosed cases had probable type 2 diabetes.
- The incidence of probable type 2 diabetes in 2001 was approximately two times higher than probable type 1 diabetes (17.4 per 100,000 youth vs. 8.7 per 100,000 youth) among American Indian youth from these reservations.



Care of Children with Diabetes in School Settings

Care of Children with Diabetes in the School and Day Care Settings

American Diabetes Association – Position Statement, Abridged

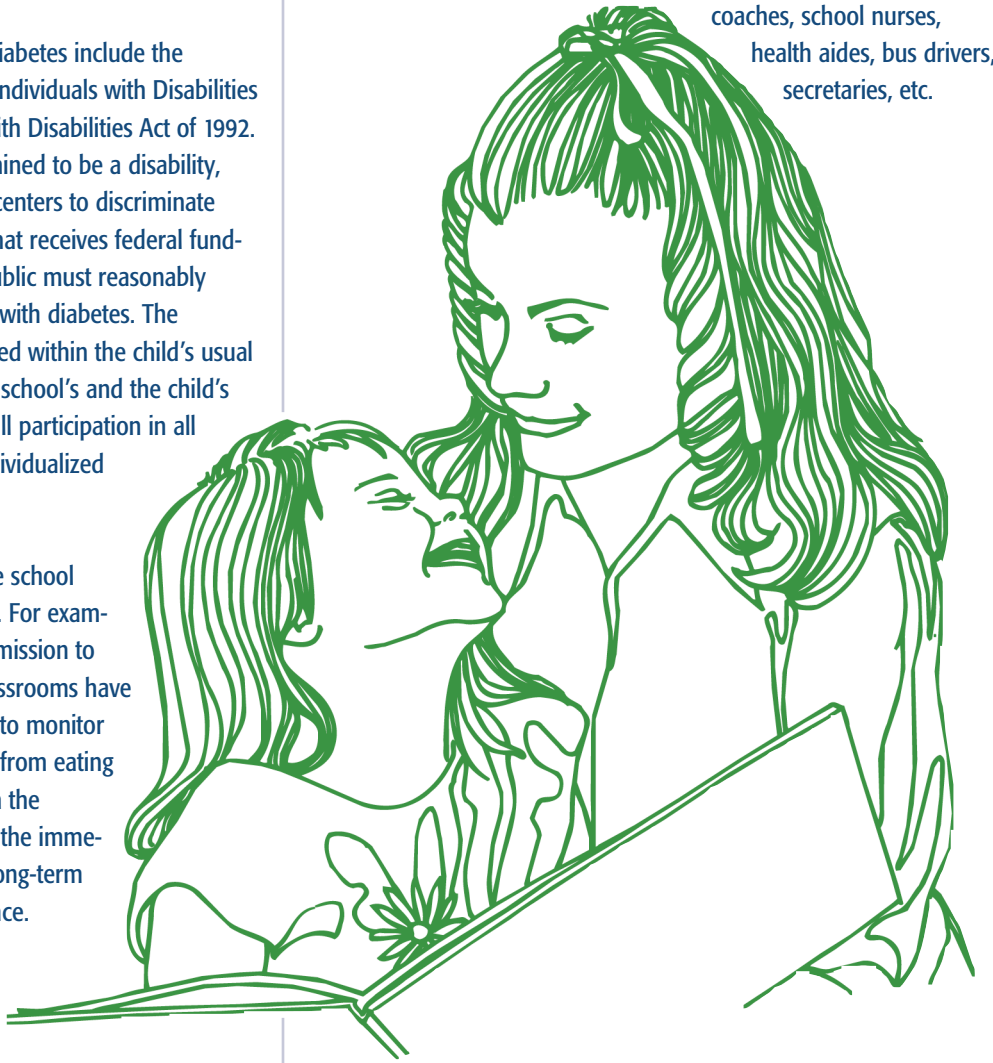
(See the ADA web site listed in the appendix for the position statement in its entirety.)

Diabetes is one of the most common chronic diseases of childhood, with an incidence of approximately 1.7 affected individuals per 1000 people aged younger than 20 years. In the U.S., approximately 13,000 new cases are diagnosed annually in children. About 125,000 individuals younger than 19 years of age have diabetes in the U.S. A majority of these children attend school and/or some type of day care and need knowledgeable staff to provide a safe school environment. Both parents and the health care team must work together to ensure school systems and day care providers have the information and training they need to allow children with diabetes to participate fully and safely in school.

Federal laws that protect children with diabetes include the Rehabilitation Act of 1973, Section 504, the Individuals with Disabilities Education Act of 1991, and the Americans with Disabilities Act of 1992. Under these laws, diabetes has been determined to be a disability, and it is illegal for schools and/or day care centers to discriminate against children with diabetes. Any school that receives federal funding or any facility considered open to the public must reasonably accommodate the special needs of children with diabetes. The required accommodations should be provided within the child's usual school setting with as little disruption to the school's and the child's routine as possible and allowing the child full participation in all school activities. Federal law requires an individualized assessment of any child with diabetes.

Despite these protections, children in the school and day care setting still face discrimination. For example, some day care centers have refused admission to children with diabetes. Children in those classrooms have not been provided the assistance necessary to monitor blood glucose and/or have been prohibited from eating needed snacks. Appropriate diabetes care in the school and day care setting is necessary for the immediate safety of the child and for the child's long-term well being and optimal academic performance.

School and day care personnel must have an understanding of diabetes and its management to facilitate the appropriate care of the child with diabetes. Knowledgeable personnel are essential if the child is to achieve the good metabolic control required to decrease risks for later development of diabetes complications. Studies have shown that the school personnel often have an inadequate understanding of diabetes and the parents of children with diabetes lack confidence in their teachers' ability to manage diabetes effectively. Consequently, diabetes education needs to be targeted at day care providers, teachers, and other school personnel who interact with the child, including school administrators, school coaches, school nurses, health aides, bus drivers, secretaries, etc.



ADA Recommendations for Screening

American Diabetes Association Recommendations for Diabetes Classification, Testing and Diagnosis (revised, 1997)

Name Changes

- Type 1 – Formerly (IDDM) – insulin dependent diabetes mellitus, juvenile onset diabetes
- Type 2 – Formerly (NIDDM) – adult onset dependent diabetes mellitus

Simplified Testing and Diagnosis

Diabetes can be diagnosed in one of three ways, confirmation should be completed on a different day using one of the other tests listed below:

1. A Fasting Plasma Glucose (FPG) of ≥126 mg/dl (after no caloric intake for at least eight hours)*
2. A casual plasma glucose (taken at any time of day without regard to time of last meal) ≥200 mg/dl with the classic diabetes symptoms of increased urination, increased thirst and unexplained weight loss.
3. An oral glucose tolerance test (OGTT) value of ≥200 mg/dl in the two hour sample.

**Preferred test:* *ease of administration*
convenience
acceptability to patient
lower cost

Diabetes General Information

Diabetes – Overview

Diabetes is a disorder of metabolism–the way in which your body converts the food you eat into energy. Most of the food you eat is broken down by digestive juices into the fuel you need to survive including a sugar called glucose. Glucose is the body's main source of energy. After digestion, glucose passes into your bloodstream, where it is available for cells to take in and use or store for later use.

In order for your cells to take in glucose, a hormone called insulin must be present in your blood. Insulin acts as a "key" that unlocks "doors" on cell surfaces to allow glucose to enter the cells. Insulin is produced by special cells (islet cells) in an organ called the pancreas, which is about 6 inches long and lies behind your stomach.

In people, who do not have diabetes, the pancreas automatically produces the right amount of insulin to enable glucose to enter cells. In people who have diabetes, cells do not respond to the effects of the insulin that the pancreas produces. If glucose cannot get inside cells, it builds up in the bloodstream. The buildup of glucose in the blood–sometimes referred to as high blood sugar or hyperglycemia (which means "too much glucose in the blood") is the hallmark of diabetes.

When the glucose level in your blood goes above a certain level, the excess glucose flows out from the kidneys (two organs that filter wastes from the bloodstream) into the urine. The glucose takes water with it, which causes frequent urination and extreme thirst. These two conditions–frequent urination and unusual thirst–are usually the first noticeable signs of diabetes. Weight loss often follows, resulting from the loss of calories and water in urine. A summary of common symptoms of diabetes and factors that can affect blood sugar levels in people with diabetes follows.

Symptoms of High Blood Sugar that Characterize Diabetes

- Frequent urination (including during the night)
- Unusual thirst
- Extreme hunger/weakness
- Unexplained weight loss
- Extreme fatigue
- Blurred vision
- Irritability
- Itchy skin
- Slow healing of cuts and bruises
- Frequent infections of skin/gums/vagina/bladder
- Tingling/numbing in legs, feet, hands

Types of Diabetes

Diabetes occurs in several different forms. This manual will focus primarily on issues related to type 1 diabetes in children.

Type 1 Diabetes

Type 1 diabetes usually has a very rapid onset. It was previously called juvenile diabetes because most people develop it as children or teenagers. This type of diabetes occurs when the cells in the pancreas that make insulin are mistakenly damaged by the body's own immune defense system. The underlying cause for this damage has not been identified yet, although research is currently underway. Developing type 1 diabetes is not the fault of the child and often there is no family history of type 1 diabetes. To date, insulin injection is necessary for survival. The only treatment is to control food intake, activity levels and insulin. Approximately 5-10% of all people with diabetes have type 1 diabetes, but the majority of children with diabetes have type 1.

There is no single way to treat type 1 diabetes. Each child's life events vary and as such, experienced diabetes teams are necessary to set up individualized treatment plans. For treatment plans to be most successful, an insulin regimen will be tailored to the needs of the child, as will a meal plan and recommendations for physical activity. New information on diabetes management allows people with diabetes to be more liberal with food planning. Children with diabetes must be allowed to participate fully in all school activities. They need the cooperation and support of school staff members to help them with their treatment plan.

Blood sugar monitoring is essential to help assess how well the treatment plan is working. Most children can perform blood sugar checks by themselves but may need a private place to do so. Some children may need supervision to see that the procedure is done properly and results are recorded accurately. It is helpful for the child to have a meter at school so the blood can be checked when needed. How often the child checks or whether he/she checks at school at all are decisions made in conjunction with the child, family, child's diabetes team and school personnel.

It is the board of education's responsibility to ensure that staff, including nursing staff, has adequate training and updated skills in order to assist children with diabetes. The school nurse is responsible to recognize when additional training is needed to perform a particular procedure and to help determine where the appropriate training can be obtained.

Type 2 Diabetes

Type 2 diabetes is the most common form of the disease, representing 90-95% of people with diabetes. It was previously known as adult-onset or non-insulin dependent diabetes because it most often occurs after age 40. However, a recent trend has emerged in which type 2 diabetes is being diagnosed in children, adolescents and young adults. Currently, studies are underway to better define the populations at highest risk for this form of diabetes, so that preventive measures may be taken and appropriate behavioral and medical therapies may be developed.

The Path Toward Type 2 Diabetes

Family history is closely linked with type 2 diabetes. One of the greatest risk factors for type 2 diabetes is excess weight. The same is likely true for children with diabetes. As an individual gains weight, the extra weight causes the cells of the body to become resistant to the effects of insulin. The pancreas responds by producing more and more insulin, which eventually begins to build up in the blood. High levels of insulin in the blood, a condition called insulin resistance, may cause problems such as high blood pressure and harmful changes in the levels of different fats (cholesterol) in the blood. Insulin resistance, is the first step on the path to type 2 diabetes.

The second step to type 2 diabetes is a condition called impaired glucose tolerance. Impaired glucose tolerance occurs when the pancreas becomes exhausted and can no longer produce enough insulin to move glucose out of the bloodstream into cells. Glucose begins to build up in the blood. If it is not diagnosed and not treated, this gradual rise in glucose often leads to type 2 diabetes, high blood pressure, and heart disease—in any order and in any combination.

While all these harmful activities are going on inside the body, the affected individual may feel perfectly fine. Type 2 diabetes is considered a silent disease because it works its destruction over many years without causing any noticeable symptoms. That's why 1/3 of the people who have type 2 diabetes don't know it. You or someone you love could have diabetes.

Testing for Type 2 Diabetes in Children:

Testing for type 2 Diabetes In Children (ADA Consensus Statement, diabetes Care, vol.23. #3, March 2000)

- Criteria (clinical judgment should be used to test for diabetes in high-risk patients who do not meet these criteria):
  - Overweight (BMI >85th percentile for age and sex, weight for height >85th percentile or weight >120% of ideal height) PLUS
  - Any two of the following risk factors:
    - Family history of type 2 diabetes in first or second degree relative
    - Race/ethnicity (American Indian, African-American, Asian/Pacific Islander)
    - Signs of insulin resistance or conditions associated with insulin resistance (acanthosis nigricans, hypertension, dyslipidemia, PCOS)
    - Age of initiation: age 10 years or at onset of puberty if puberty occurs at a younger age
    - Frequency: every 2 years
    - Test: FPG preferred

Preventing and Managing Type 2 Diabetes

The best way to help prevent and manage type 2 diabetes is to adopt and follow a healthy lifestyle, which is recommended for everyone.

Components of Healthy Living for Type 2 Diabetes Management and Prevention

- Well-balanced diet
- Weight management
- Regular physical activity
- Blood glucose monitoring and management
- Medications, if prescribed
- Avoidance of tobacco use
- Stress management
- Moderate (in adults) or no alcohol consumption

Nutrition

Nutrition is one of the cornerstone treatments of diabetes. The goals of nutrition therapy include an adequate caloric and nutritional intake for growth and development and the balance of food with insulin and activity to achieve appropriate blood glucose levels.

Children with diabetes have the same nutritional needs as a child without diabetes. A meal plan needs to be developed to meet the individual needs of the child, taking into consideration food preferences, cultural influences, family eating patterns and schedules, weight, activity level, and insulin action peaks. The whole family can benefit from these healthy eating guidelines.

The Food Guide Pyramid is a guide for choosing healthy foods.

There are 3 major nutrients found in the food groups identified on the Food Guide Pyramid. A summary of these nutrients (protein, carbohydrate and fat), their roles in the body, the food groups that contain them, and their impact on blood sugar follows.

Protein builds and repairs body tissues. Protein is important for normal growth and development. Eaten by itself, protein may have little effect on blood sugar. As part of a mixed meal, protein may slow the absorption of carbohydrate, causing blood sugar to rise more gradually.

Over the years, many popular body building and weight loss regimens have over-emphasized the role protein plays in a healthy, well-balanced meal plan. It is not uncommon for individuals to turn to protein supplements in the form of powders, shakes, etc. to boost their protein intake. It is important to note that protein needs for even vigorous athletes can be easily met with everyday food sources. For people with diabetes, it is especially important to communicate with their physicians if they are considering a protein supplement or any other nutritional supplement, due to the potential impact they may have on blood sugar levels.

Food Group Sources of Protein:
- **Meat and Others**
- **Milk**

Fats add flavor to our foods, and are a very concentrated source of energy for the body. They also slow the emptying time of the stomach after a meal. Eaten alone, fats have very little effect on blood sugar. As part of a mixed meal, fats may slow the absorption of carbohydrate, causing a more gradual rise in blood sugar.

Food Group Sources of Fats:
- **Meat and Others**
- **Fats**
- **Sweets**

Carbohydrates provide most of the energy we need to move, work and live. As such, the majority of calories consumed should come from carbohydrate sources, spaced appropriately throughout the day. Of all the food components, carbohydrates have the greatest effect on blood sugar. The total amount of carbohydrate consumed has more of an effect on blood sugar than the type of carbohydrate.

Food Group Sources of Carbohydrates:
- **Starch /Grain**
- **Fruit**
- **Milk**

Meal planning for diabetes includes all the principles of good nutrition that are recommended for good health. People with diabetes are encouraged to choose a well-balanced diet with a controlled amount of carbohydrate at each meal and snack in order to help manage blood sugar.

Healthy carbohydrates from starches, fruits and milk are encouraged daily. Sweets can be worked into a meal plan occasionally, as long as the carbohydrates they contain are accounted for, keeping in mind they are often sources of empty calories. This is true for any child or adult with or without diabetes. ***Remember that children with diabetes are children first and should not be made to feel different from their peers by completely eliminating certain foods.***

Carbohydrate information can be obtained from many sources, including the Food Guide Pyramid, food labels, and any number of books that contain nutrient information of specific foods.

Individualizing Meal Plans for Children with Diabetes

It is recommended that children see a Registered Dietitian, who is preferably a Certified Diabetes Educator, once a year for an individualized meal plan. The meal plan should include 3 meals and 2-3 snacks with a specific amount of carbohydrate. The meals and snacks should be timed appropriately with the peak of the child's insulin. Each child needs a certain amount of carbohydrate based on age, size, gender and activity level.

General Guidelines for Daily Carbohydrate Intake**

Age	Daily Carbohydrate Needs	Per Meal	Per Snack
5-10 years	Male and Female: 200-275 grams	50-70	15-20
11-15 years	Male: 275-400 | Female: 275-300	70-90	30-45
16-18 years	Male: 300-375 | Female: 250-300	75-100	30-50

*** This is a generalization; children who have seen a Registered Dietitian may have a meal plan individualized for them based on age, gender, activity level, etc.*

Knowing the carbohydrate content of given foods allows for more flexibility in the meal plan. One serving from starch/grain, fruit, milk or sweets group contains 15 grams of carbohydrate. The following chart illustrates examples of foods that contain approximately 15 grams of carbohydrate.

15 Gram Carbohydrate Snack Choices

Choose More Often	Choose Less Often
1 cup low fat milk	1 mini bag potato chips
1 (4 ounce) juice box	1 small cupcake
1 (4 ounce) jar canned fruit	2 small cookies
1 piece fresh fruit	1/2 cup ice cream
8 animal crackers	1 snack pack pudding
1 whole graham cracker	1" to 2" square birthday cake
1 mini bag pretzels	
4 peanut butter or cheese crackers	

Special Nutrition Issues

School Parties:

Sweets can be eaten on a special occasion such as a birthday party or Halloween party. The carbohydrates should be included as part of the child's meal plan. See snack list for serving sizes equal to 15 grams of carbohydrate.

Field Trips:

Children should carry convenient snacks on the bus and field trip. Bus drivers and chaperones should be notified that the child has diabetes and may need to eat a snack on the bus or during the trip.

After Care:

Children should have a convenient snack if staying after school. Notify school personnel that the child may need to eat during the session.

School Lunch:

Children with diabetes may participate in the school lunch program. Families can review the school menu ahead of time and modify as needed. Families may also wish to contact the School Food Service Director if needed, to find out the nutritional content of the meals served to have a more consistent amount of carbohydrates.

Food Labels

Another method of determining how a food may fit into your daily meal plan is through the nutrition information found on food labels. Food labels can help you figure out the appropriate portion size to provide the amount of carbohydrate needed at any given meal or snack. Use the food label for pretzel nuggets along with the following instructions to learn how to determine appropriate portion sizes based on carbohydrate needs.

- Look at serving size: 12 pretzel nuggets
- Look at Total Carbohydrate: 23 grams

The sugars listed are included in the Total Carbohydrate amount and therefore should not be added to the total carbohydrate amount.

To figure out how much carbohydrate is in each pretzel nugget:

- Total carbohydrate divided by serving size
- 23 g carbohydrate divided by 12 nuggets = 1.91 g/nugget
- Therefore there are about 2 grams of carbohydrate in each pretzel nugget

Next you can figure out how many pretzel nuggets are equal to 15 grams or 30 grams of carbohydrate.

For 15 grams carbohydrate:

15 grams divided by 2 = approximately 8 pretzel nuggets contain 15 grams carbohydrate

For 30 grams carbohydrate:

30 grams divided by 2 = approximately 15 pretzel nuggets contain 30 grams carbohydrate

Diet Exchanges**: 1.5 Starch

**Based on the Exchange Lists for Meal Planning.

Nutrition Facts

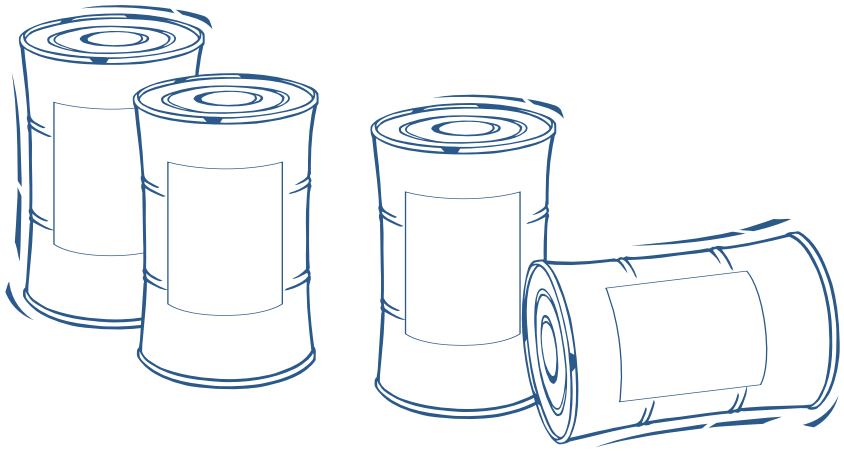
Serving Size 1 oz (28 g/about 12 nuggets)
Servings Per Container: 18

Amount Per Serving	
Calories 100	Calories from Fat 0
	% Daily Value
Total Fat 0 g	0%
Saturated Fat 0 g	0%
Cholesterol 0 mg	0%
Sodium 420 mg	17%
Total Carbohydrate 23 g	8%
Dietary Fiber 1 g	4%
Sugars 1 g	
Protein 3 g	
Vitamin A 0%	Vitamin C 0%
Calcium 0%	Iron 6%

Percent Daily Values are based on a 2,000-calorie diet. Your daily values may be higher or lower depending on your calorie needs.

	Calories	2,000	2,500
Total Fat	Less than	65 g	80 g
Sat Fat	Less than	20 g	25 g
Cholesterol	Less than	300 mg	300 mg
Sodium	Less than	2400 mg	2400 mg
Total Carbohydrate		300 g	375 g
Dietary Fiber		25 g	30 g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4



Physical Activity

Physical activity is an important part of the overall management of diabetes. The benefits of physical activity include cardiovascular fitness, long term weight control, social interaction and the promotion of self-esteem fostered by team play. Additionally, physical activity can help to lower blood sugar.

Physical activity is a fundamental part of a healthy lifestyle for all children including children with diabetes. Children with diabetes can participate in gym class and after school sports. Health care providers may suggest adjustments in medication and food for appropriate blood glucose control. Families are encouraged to include more physical activity at home.

General Physical Activity Guidelines:

1. Drink lots of sugar free fluids, especially water
2. Have rapid acting carbohydrate sources available
3. Test blood sugar before, during and after physical activity
4. Wear diabetes ID
5. To avoid low blood sugar, eat more carbohydrate or talk with your health care provider about reducing the amount of insulin prior to physical activity.

Carbohydrate Replacement for Physical Activity

The blood sugar should be checked according to the physician's plan so that proper measures can be taken to keep the level in the appropriate range. The following chart illustrates the action that should be taken to maintain blood sugar safely with physical activity. If blood sugar is greater than 240, check for presence of ketones in the urine. For more details on ketones, see section entitled Hyperglycemia and Monitoring for Presence of Ketones.

According to the most recent position statement from the American Diabetes Association (Diabetes Care, Volume 25, Supplement 1, January 2002) regarding exercise and control of blood sugars, the following guidelines should be adopted:

- Avoid exercise if fasting glucose levels are >250 mg/dl and ketones are present, and use caution if glucose levels are >300 and no ketones are present.
- Ingest added carbohydrate if glucose levels are <100 mg/dl.

Type of Activity	If Blood Sugar Prior to Activity is:	Then Eat the Following Carbohydrate Before Activity:
Short Duration Less than 30 minutes	Less than 100	15 grams carbohydrate
	Greater than 100	no carbohydrate necessary
Moderate Duration 1 hour	Less than 100	25-50 grams carbohydrate plus protein source
	100-180	15 grams carbohydrate
	180-240	no carbohydrate necessary
Strenuous 1-2 hours	Less than 100	50 grams carbohydrate plus protein source
	100-180	25-50 grams carbohydrate; plus protein source
	180-240	15 grams carbohydrate

Child's Physical Activity Schedule

Sunday

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Snack Choices for Physical Activity

15 grams carbohydrate:

1 – 4 ounce juice box
1 cup Gatorade
1 sliced orange or apple
1 small box raisins
6 saltines
1 cup light yogurt
3/4 cup dry cereal

30 grams carbohydrate:

1 cereal bar
1 – 8 ounce juice box
2 slices bread
1 small bagel

45-50 grams carbohydrate plus protein:

1 sports nutrition bar
1 package (6) cheese or peanut butter sandwich crackers plus 4 oz. juice

Protein Sources:

Peanut butter
Sliced or String Cheese
Lunch Meat
Egg
Peanuts, Walnuts or Almonds

Physical Activity Special Issues:

A low blood sugar can occur 4-12 hours after a physical activity session.

How To Prevent Delayed Low Blood Sugar Due to Exercise:

- Test blood sugar after physical activity, before bedtime and even during the night.
- Ensure that a substantial snack is eaten before bedtime, which includes carbohydrate and possibly some protein.

Blood Sugar Monitoring

Blood sugar monitoring is a necessary and useful tool in the management of diabetes. Monitoring helps looks for patterns of blood sugar values as well as helping to detect acute problems of high or low blood sugar.

Persons on an intensive management plan monitor their blood sugar every time they eat a meal to help them decide how much insulin to take at that time.

There are numerous brands of monitors/meters available, each with specific features that an individual may find useful. The school nurse needs to become familiar with the monitor the child is using. In Montana, most insurance companies cover the cost of monitors for people who are treated with insulin.

What Level Should a Blood Sugar be?

For a person who does not have diabetes, a normal blood sugar level is 70-110 mg/dl. Blood sugar levels in a child with diabetes will vary depending on insulin action times, food consumed, and activity level.

The diabetes health care professional will advise the child's family on an appropriate "target range" that the blood sugar level should fall within most of the time, and the necessary action to take when out of this range. They will also give recommendations about how often the blood sugar checks should be done.

Blood Sugar Levels in mg/dl (mmol/L)		
400-800	Very high	Stomach ache, difficulty breathing
200-400	High	Low energy
Goal		
80-200 70-180 70-150	< 5 years 5-11 years 12+ yrs	Feels fine
70-110	Normal	Feels fine
<60	Low	Sweating, hunger and shakiness

Adapted from "Understanding Insulin-Dependent Diabetes" by H. Peter Chase, MD, Barbara Davis Center for Childhood Diabetes

Some Helpful Suggestions:

- The finger should be clean and dry before being pricked. Dirty hands may alter the reading. (Rubbing alcohol is not required.)
- Apply an adequate amount of blood to the test strip.
- Allow child to assist in the steps in the monitoring procedure. The age and personality of the child will determine the involvement level. Even small children can help with some of the steps such as choosing the finger or getting the strip out of the container.
- Try not to use the word "test" in reference to blood sugar checks. "Test" can imply a "pass" or "fail" result.
- Don't get in the habit of calling blood sugar results "good" or "bad." Values are either "within range" or "out of range" which can be called "high" or "low." Try to use a non-judgmental approach when a result is abnormal.
- If the blood sugar reading is unusually high or unusually low, repeat the check. Then, treat for hyperglycemia or hypoglycemia following the second check.

Criteria for Determining Appropriateness of Self-Testing Blood Sugar at School

- The child demonstrates accurate finger-stick technique.
- The child uses appropriate infection control practices consistently.
- The child disposes of sharps appropriately.
- The child is able to interpret blood sugar results and seek appropriate treatment if necessary.

Hypoglycemia

Hypoglycemia: Low Blood Sugar (Insulin Reaction)

Warning signs and symptoms of low blood sugar (insulin reaction) happen suddenly. Signs and symptoms can easily be mistaken for misbehavior. The child may not recognize symptoms developing. Severity of a low blood sugar reaction may progress from mild to severe.

Severe reactions are often preventable by early detection and treatment of low blood sugars. Be familiar with identification and treatment of low blood sugar to avert an emergency situation. Blood sugar can go too low if the child with diabetes has:

- Taken too much insulin
- Too little food or delayed meal/snack
- Had extra exercise without extra food or decrease in insulin

Mild Hypoglycemia: Blood Sugar Between 50 and 70 mg/dl

Signs and Symptoms – A wide variety of symptoms and behaviors can occur:

- Change in personality
- Acting quiet and withdrawn
- Being stubborn or restless
- Tantrums or sudden rage
- Confusion
- Inappropriate emotional responses (e.g.: laughter, crying)
- Poor concentration or day dreaming
- Shakiness
- Lack of response to verbal communication
- Sweatiness
- Headache
- Pallor
- Increased heart rate

If the child appears to be having signs or symptoms, check blood sugar immediately. If the blood sugar level is unknown, go ahead and treat the symptoms.

Never send a child suspected of having a low blood sugar to the nurse's office alone. Send another child to get help if needed.

What To Do For a Child Who is Showing Signs and Symptoms of Hypoglycemia

Optimally, check blood sugar before treating a child suspected of hypoglycemia, but when in doubt–treat. To treat follow the "Rule of 15": give the child some quick-acting sugar (15 grams of carbohydrate), such as one of the following:

- 1/2 cup (4 oz.) of juice
- 3/4 cup (6 oz.) of REGULAR (not diet) soda
- 3-4 glucose tablets
- 4-5 small jelly beans or gum drops
- 1 mini box of raisins
- 1 cup (8 oz.) sports drink
- 1 cup (8 oz.) low fat or skim milk

(Parents need to be responsible for having snacks available at school.)

Check the blood sugar 15 minutes after treatment. If the blood sugar result is less than 70 mg/dl, or if the child still has symptoms, repeat with 15 grams of quick sugar and check blood sugar 15 minutes later. Continue cycle until the child is symptom-free and the blood sugar result is above 70 mg/dl.

When the child feels better and the blood sugar result is above 70 mg/dl, give one (1) of the following if the child's next meal is more than 1/2 hour away and/or if the child will be participating in active play/sports following this low blood sugar episode.

- 4 graham cracker squares with peanut butter or cheese,
- 6 saltine crackers with peanut butter or cheese,
- **or** the equivalent combination of carbohydrate (approximately 15 grams) and protein (approximately 1 oz.)

The child may return to class after the blood sugar is above 70 mg/dl and the child no longer has symptoms. Should an exam be scheduled when the child is recovering from a low blood sugar, different arrangements may have to be made for taking the exam.

Moderate Hypoglycemia: Blood Sugar 40 mg/dl or Less

Signs and Symptoms:

- Staggering walk
- Pale appearance
- Uncontrollable crying episode
- Slurred speech
- Blank stare
- Refusal to take anything by mouth

Double the treatment amounts as indicated in the treatment for Mild Hypoglycemia. If the child has difficulty drinking but is able to swallow, (child may not be able to follow directions) place cake gel or glucose gel in between the child's cheek and gums. Administer the entire tube. Rub the cheek gently to make sure sugar is being absorbed. Follow with food if more than 30 minutes until next meal or snacks (see mild hypoglycemia).

The child may return to class after the blood sugar is above 70mg/dl and when the child no longer has symptoms.

Severe Hypoglycemia – This is a Medical Emergency!!!

Signs and Symptoms

• Unconscious • Unresponsive • Convulsion-like movement

Be sure child is lying down in a safe area protected from head and bodily injury. Position the child on his/her side. Inject glucagon per medical order and/or call for emergency medical assistance (911 in the United States). Do not attempt to put anything between the teeth. As the child regains consciousness, nausea and vomiting may occur. Notify parents/ guardians and or diabetes team of the episode as soon as possible.

What is Glucagon?

Glucagon is used to raise the blood sugar when a child is unable to take liquid or food by mouth because of severe sleepiness, unconsciousness, or seizure activity. Glucagon must be injected with a syringe into the skin, like insulin. It is a hormone, which helps the liver to release sugar to raise the blood sugar.

When Do You Use Glucagon?

When the child has low blood sugar (usually below 20 mg/dl) and is unable to take liquid or food by mouth because of severe sleepiness, unconsciousness, or seizure activity. Glucagon should be administered by licensed personnel. If none is available, call 911.

What You Need

- Glucagon Emergency Kits. The parents need a prescription to purchase the kits at a pharmacy. It is recommended there be one for home and one for school.
- Use of glucagon should be part of a child's health care plan and be supplied to school by the family with accompanying physician order.

When Possible, Check a Blood Sugar Before and/or After Giving Glucagon. To Inject Glucagon:

- Glucagon is now available as recombinant DNA in a kit containing the glucagon powder in a vial and the diluent in a glucagon syringe.
- Remove the seal from the bottle of glucagon in the kit (the small vial/bottle containing a white powder/pellet).

The glucagon syringe is marked with only 2 dosages 0.5 mg and 1.0 mg. According to glucagon manufacturer the recommended dose of glucagon to inject is:

- **0.5 mg for a child 50 pounds or under**
- **1.0 mg for a child over 50 pounds**

(Very young children may need 0.3 cc glucagon dose. Be sure to check the physician order.)

- Inject the liquid in the syringe into the bottle of glucagon.
- Remove syringe from the bottle of glucagon, shake the bottle gently until the glucagon dissolves (looks clear).
- Draw-up the solution in the bottle with the correct size syringe based on the weight of the child.
- Inject glucagon in the same manner as insulin injections.
- Keep the child lying on their side in case of vomiting.
- The blood sugar should rise at least 50-75 mg within 15-20 minutes.
- If the child does not respond, call 911.
- Once the child is awake give a snack such as peanut butter and crackers or cheese and crackers.

Note: It is common for the child to vomit or feel nauseous after receiving glucagon. Keep glucagon at room temperature in a designated location. Inform others of the location.

When possible, practice drawing up glucagon with an expired kit. Check the date of glucagon kits on a regular basis. Discard if past the expiration date. Obtain a refill immediately.

TO PREPARE GLUCAGON FOR INJECTION

Note: Glucagon should not be prepared for injection until the emergency arises.

1. Remove the flip-off seal from the vial (bottle) of glucagon. If sterile cap is not in place, wipe rubber stopper on vial with alcohol swab.

2. Remove the needle protector from the syringe, and inject entire contents of the syringe into vial of glucagon.

3. Remove syringe. Shake vial gently until glucagon dissolves and the solution becomes clear.

GLUCAGON SHOULD NOT BE USED UNLESS THE SOLUTION IS CLEAR AND OF A WATER-LIKE CONSISTENCY.

TO ADMINISTER GLUCAGON

1. Use same technique as for injecting insulin

2. Using the same syringe, withdraw all of the solution from the vial.

3. Cleanse injection site on buttock, arm, or thigh with alcohol swab.

4. Insert the needle into the loose tissue under the cleansed injection site and inject the glucagon solution. Apply light pressure at the injection site and withdraw the needle.

5. If recommended by physician, give 1/2 of the mixed dose (0.5 cc) of glucagon to children. (Very young children less than 6 years may need 0.3 cc glucagon dose).

FEED THE PATIENT AS SOON AS HE/SHE AWAKENS AND IS ABLE TO SWALLOW. If the patient does not awaken within about 10 minutes and blood sugar is still below 60 mg/dl, give another dose of glucagon and CALL A PHYSICIAN IMMEDIATELY.

CAUTION

1. Low blood glucose may cause convulsions.

2. When an unconscious patient awakens, he/she may vomit. To prevent the patient from choking on vomit, turn the patient on his/her side.

Acknowledgements: Joslin Diabetes Center, Barbara Davis Center for Childhood Diabetes

Hyperglycemia (high blood sugar) and monitoring for presence of ketones

Hyperglycemia: Blood glucose above 240 mg/dl

Signs and Symptoms:

- Loss of appetite
- Increased thirst
- Frequent urination
- Tiredness, sleepiness
- Inattentiveness/hard time concentrating
- Rapid breathing
- Fruity odor to the breath
- Nausea
- Vomiting

Possible causes:

- Not enough insulin
- Too much food
- Illness/Infection
- Stress

If the child has warning signs of hyperglycemia, check the blood sugar. If blood sugar becomes very high, the child may begin to utilize fat for energy, and produce a harmful by-product of fat metabolism called ketones. If the blood sugar level is higher than 240, the child's urine should be checked for presence of ketones.

Urine Testing for Ketones

Ketones are a warning sign that the body is burning fat for fuel instead of sugar, and this could mean diabetes is out of control. Urine ketones should be monitored if the blood sugar is over 240 or if the child is ill.

Urine testing products are read by comparing the test color to a standard color chart. Factors such as handling the color pad with your hands as well as placing test materials on a counter recently cleaned with bleach can cause inaccurate results. Be sure to read the package insert for proper handling of the product.

Be aware of expiration dates. Once a bottle of strips is opened, they are only good for a specified time. Check the label regarding how long they are good for after first opening. Ketone strips are available in individually foil wrapped packages. These strips will last until the expiration date, and are a good choice for use at school.

Interpreting Urine Ketone Results

If Urine Ketones are:

Negative to small: give lots of fluids (sugar-free such as water or diet soda pop). Recheck blood glucose and urine for ketones in several hours.

Moderate to large: call parent/diabetes team–rapid-acting or short-acting insulin may need to be given. Encourage fluids by mouth. Seek guidance from a physician if ketones are moderate or large.

If the blood sugar test result in school is over 240, or if the child has warning signs of high blood sugar, parent/guardians need to be made aware. This does not have to occur immediately unless the child is spilling moderate or large ketones. When ketones are moderate or large a serious medical condition called ketoacidosis may be developing. The parents should be advised immediately. If the child is vomiting and unable to take fluids by mouth, call 911 for transportation to the family's preferred emergency room.

Never withhold food or make child perform extra exercise for high blood sugar episodes.

Insulin and Insulin Delivery Systems

Insulin

There are many different types of insulin, for different situations and lifestyles.

Characteristics

The three characteristics of insulin are:

Onset – The length of time before insulin reaches the bloodstream and begins lowering blood sugar.

Peak time –The time during which insulin is at its maximum strength in terms of lowering blood sugar levels.

Duration – How long the insulin continues to lower blood sugar (see table below).

Storage

Opened vials can be stored at room temperature or in the refrigerator for 28 days. Unopened vials can be stored at room temperature for 28 days. Unopened vials can be stored in the refrigerator until the expiration date. Check the manufacturer's patient information insert for storage recommendations for insulin pens.

Expiration Date

Make sure that all the insulin that is purchased will be used before it's expiration date.

Insulin Delivery Systems

Syringes…pumps……pens ….…they all do the same thing–deliver insulin. These items deliver insulin into the tissue so it can be used by the body. This category also includes injection aids – products designed to make giving an injection easier.

Syringes

Today's syringes are smaller and have finer needles and special coatings that work to make injecting as easy and painless as possible. When insulin injections are done properly, most people discover they are relatively painless.

Points to Consider for Optimal Insulin Delivery by Syringe

- The syringe being used should be the right size for the insulin dose.
- It should be easy to draw up and visualize the dosage (devices are available to make this task less complicated).
- Shorter, smaller needles are available which allow for ease of administration.

Types of Insulin by Comparative Action Curves

Action Time	*Insulin Type	Onset	Peak (hrs.)	Usual Effective Duration (hrs.)	Usual Maximum Duration (hrs.)
Rapid-acting	Lispro (Humalog)	<15 minutes	.5-1.5	2-4	4-6
Rapid-acting	Aspart (Novolog)	<15 minutes	.75-1.0	3-5	
Short-acting	Regular	0.5-1 hr.	2-3	3-6	6-10
Intermediate acting	NPH	2-4 hrs	4-10	10-16	14-18
Intermediate acting	Lente	3-4 hrs	4–12	12-18	16-20
Long-acting	Ultralente	6-10 hrs.	None	18-20	20-24
Long-acting	Lantus/glargine	4-8 hrs.	None	24	

** Pre-mixed insulin (a mixture of NPH and regular) is also available, but is generally not recommended for children.*

Insulin Pens

There are a wide range of insulin pen options available. The pens can be an excellent option when children need a single kind of insulin. They can make taking insulin much more convenient. Some children find the pen needles make injection more comfortable.

Pumps

Insulin pumps are computerized devices, about the size of a beeper or pager, which one can wear on a belt or put in your pocket. They deliver a steady, measured dose of insulin through a cannula, a flexible plastic tube, with a small needle that is inserted through the skin into the fatty tissue. The cannula is taped in place–not the needle. Insulin pumps may be worn during most athletic activities.

Advantages

- Pumps most closely mimic the body's normal release of insulin
- Pumps deliver insulin in two ways:
  – Basal: small, hourly dose that is pre-programmed
  – Bolus: given to cover food or cover high blood sugar
- Pump therapy allows for much greater flexibility in food choices and meal timing
- Children who wear pumps can participate in all school activities

Responsibilities of Pump Wearer

- Must be willing to check blood sugar minimum of 4 times/day
- Must learn how to make adjustments in insulin, food and exercise in response to those test results
- Must respond to blood sugar readings
- Keep back up insulin, syringe or pen, and pump supplies available at school and home.

Disposing of Sharps Safely

Millions of individuals with serious health conditions manage their care at home, at school, or at work. For example, people with diabetes use syringes to inject their own insulin and lancets to check their blood sugar every day. All this creates a lot of medical waste. What's the best way to handle this waste?

The best way to protect trash handlers and sewage treatment workers against disease or injury and avoid attracting drug abusers looking for syringes to reuse is to follow these guidelines for containment and disposal of sharps.

Containment

- Contain the sharps safely.
- Use a puncture-proof plastic container with tight-fitting screw top. A thick plastic container or bleach bottle is good. Don't use glass because it can break. Coffee cans are not recommended because the plastic lids come off too easily. A red sharps container may be purchased at local pharmacies as well.
- Label the container clearly. Write "Contains Sharps" with a waterproof marker directly on the container or on masking tape on the container.
- Once a syringe or lancet is used, immediately put it into a container. Screw on the top. Don't clip, bend or recap the needles because of potential injury to yourself.
- Keep the container away from children!
- When the container is full, screw on the cap tightly. Seal it with heavy-duty tape to be extra-safe.

Disposal

There are different options for getting rid of the container of sharps. Some cities and towns have more options than others. Here are the best bets for safety, health and protection of the environment. Call local doctors, pharmacies, clinics, local hospitals or nursing homes and ask if they accept properly contained sharps for disposal. Some hospitals and nursing homes will accept properly contained home medical waste for disposal.

- Ask local diabetes educators or local American Diabetes Association chapter about sharps disposal programs.
- Call local doctors, pharmacies, clinics, local hospitals or nursing homes and ask if they accept properly contained sharps for disposal. Some hospitals and nursing homes will accept properly contained home medical waste for disposal.
- Call local public works department or solid waste manager. (Check the blue pages of the telephone book for their numbers.)
- Call local health departments and ask for the health educator or county sanitarian. Ask about special household medical waste disposal programs.

DO NOT PUT THE SHARPS CONTAINER OUT WITH THE RECYCLABLE PLASTICS–

SHARPS ARE NOT RECYCLABLE.

For more information, contact:
State Department of Environmental Quality
1520 E. Sixth Avenue | PO Box 200901
Helena, MT 59620
Phone: 406-444-2544 | Fax: 406-444-4386

Helping Others Take Care of the Child with Diabetes

There will be many people who will be responsible for the care and supervision of the child with diabetes. Each day the child will encounter teachers, coaches, bus drivers, baby-sitters, friends, relatives etc. who will need to know some key information in order to safely supervise their care.

This section includes two resources for parents or school personnel to be used to help facilitate communication and to supplement the education provided to these caregivers.

The first resource is the "Diabetes ID Card." The card includes basic information about the care of the child with diabetes. It is suggested that this form be laminated or printed on card stock to be used as a quick reference for teachers, coaches, bus drivers, cafeteria aides, friends, field trip chaperones, etc. This approach works quite well when there is a need to communicate to a large staff or groups of people. Many families have a large number of cards printed and always have their child carry cards to be distributed as needed to "educate" someone new.

The other resource is a more detailed handout titled "Diabetes Care Information For You." This can be copied and used to communicate to those who care for the child on a more extended basis.

Both resources can be individualized to describe the child's particular schedule, symptoms of low blood sugar and how to treat a reaction.

Diabetes ID Card

My Photo

My name is _____

I am _____ years old AND I HAVE DIABETES

This means that my pancreas does not make insulin. Without insulin, the food I eat cannot be used for energy. To treat diabetes, I must take insulin everyday and also try to balance my activity level and the food I eat. Several times a day I must check my blood sugar level using a special meter I always have with me. It's important that you understand some facts about diabetes while I'm in your care. Please read this and keep it nearby.

FACT 1: MEALS AND ACTIVITY

My blood sugar is affected by the food I eat, the amount of activity I get and the amount of insulin I take. Please make sure that:

- My meals and snacks are eaten on time.
- I eat my meals at _____, _____, _____.
- I may need an extra snack before, during, or after a strenuous activity. I will check my blood sugar to see if I need to eat. So please allow me to do this.

FACT 2: LOW BLOOD SUGAR REACTIONS

Occasionally, my blood sugar may be too low (insulin reaction). A reaction is most likely to occur: just before lunch, right after strenuous activity, if my meal is delayed, or if I don't eat enough food. If my blood sugar goes too low, I will have the following symptoms or signs:

- If this happens I NEED SUGAR IMMEDIATELY!
  - – you can give me _____
  - – you will find this _____
- If I'm not better in 10-15 minutes, give me
- I will need to check my blood sugar if possible.
- If my blood sugar drops too low, I may become sleepy, unconscious, or have a seizure.

DO NOT TRY TO FEED ME. INSTEAD CALL 911 or call _____ at _____ (phone #) to give me GLUCAGON by injection. If this happens, please call my parents.

EMERGENCY NUMBERS:

Mother: _____ **Phone:** _____

Father: _____ **Phone:** _____

Other: (relationship): _____ **Phone:** _____

Diabetes Care Information for You

My name is: _____

I am _____years old

I am in/on your class/team/school today – **and I have diabetes.**

This means that my pancreas does not make insulin. Without insulin, the food I eat cannot be used for energy. To treat diabetes, I must take insulin everyday and also try to balance my food and activity. Several times a day I must check the amount of sugar in my blood to make sure it's not too high or too low. I test my blood sugar by using a special meter that I always have with me. It's important that you understand some facts about diabetes while I'm with you. So please take the time to read this and keep it nearby.

First of all, I should not be considered as "sick" or "different" but as a normal kid who must follow certain precautions. Some of these are described below.

Participation in Activities

I can participate in all school/team activities. I may need to test my blood sugar if the activity is strenuous or if for some reason we suspect that my blood sugar is low or high. I may need to have an extra snack before, during, or after exercise and my parents will make sure I have one with me.

Meals and Snacks

My blood sugar is affected by the amount of food I eat, the amount of activity I have, and the amount of insulin I take. These all must be balanced.

Please Make Sure that:

- My meals and snacks are eaten at about the same time each day.
- I eat my snacks at about_____, _____, _____.
- I eat my breakfast at about _____.
- I eat my lunch at about _____.
- I eat my dinner at about _____.
- I will have a snack with me everyday or my parents will let you know what to give me instead.

Emergency Phone Numbers

If an emergency arises, or if you have any questions, please call my parents

Parents name: _____
Phone number: _____

Parents name: _____
Phone number: _____

Other contact: _____
Phone number: _____

Primary Care Physician: _____
Phone number: _____

Thank you for taking the time to read this information. If you have any questions please ask us.

IMPORTANT INFORMATION ON BACK ⟶

Low Blood Sugar

Occasionally, my blood sugar may be too low. This is called an insulin reaction. A reaction is most likely to occur:

- just before lunch
- right after strenuous exercise
- when I do not eat my meal or snack on time.

The classic signs of low blood sugar are…

- Change in personality
- Confusion
- Shakiness
- Sweatiness
- Headache
- Pallor

If my blood sugar is low, I often have the following symptoms/signs:

_____

_____

_____

_____

_____

_____

_____

_____

If this happens I NEED SUGAR IMMEDIATELY!

You can give me _____

_____

_____

_____

You can find this _____

_____

_____

_____

This treatment should raise my blood sugar in about 10-15 minutes. If my symptoms continue longer, you should repeat treatment. If my symptoms continue after another 10-15 minutes, please call my parents.

If my blood sugar drops too low, I may become sleepy, unconscious, or have a seizure. DO NOT TRY TO FEED ME! Instead call

_____

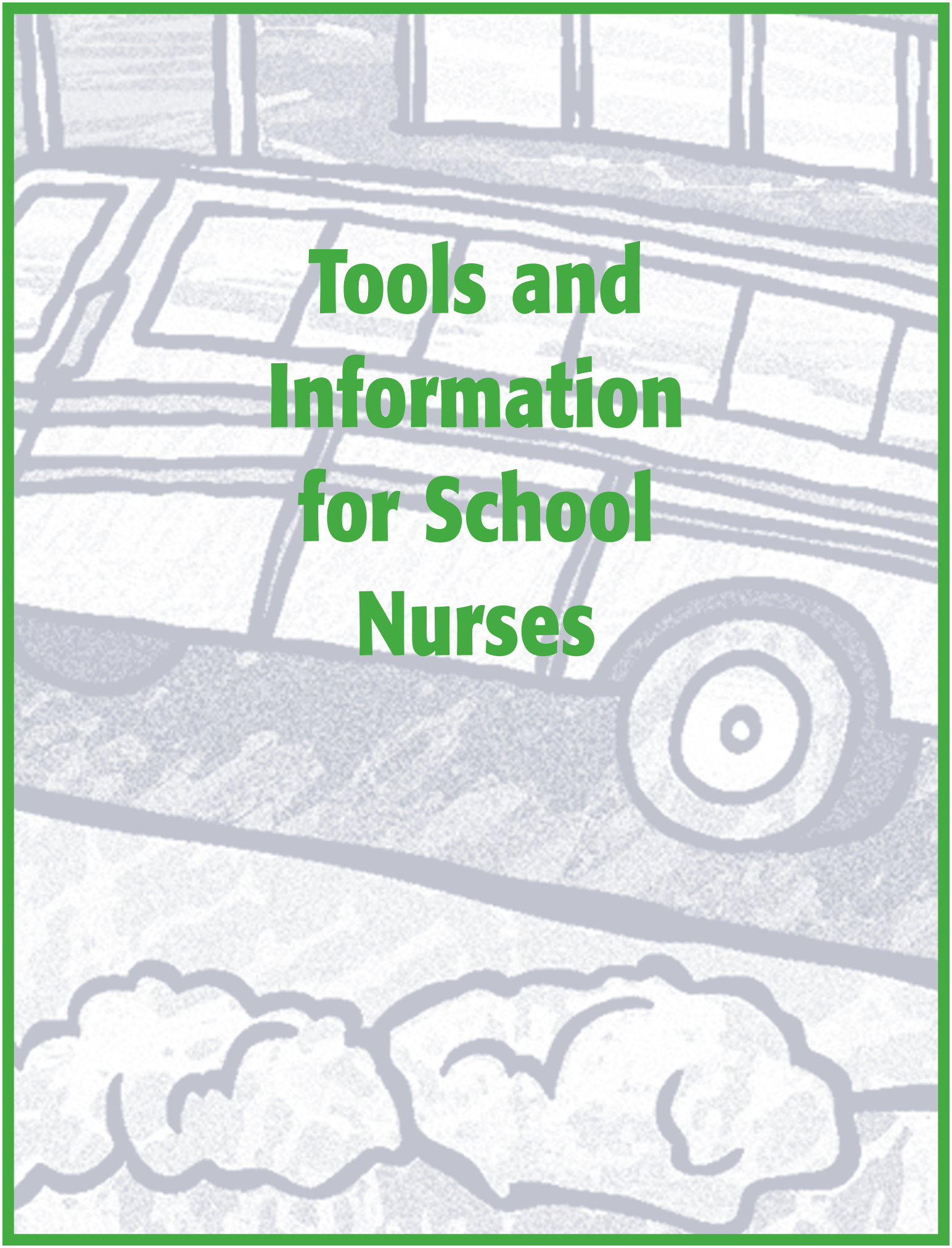
to give me glucagon or call 911. My parents should also be notified.

High Blood Sugars

There may be times when I have high blood sugar. High blood sugar is usually caused by eating too much food, not having enough insulin, or having too little physical activity. If my blood sugar is high, I may be very thirsty and need to drink water. I also may have to urinate a lot and will need to use the bathroom frequently. If my blood sugar is high, I should not exercise and will need to be excused from gym or a game. High blood sugars are not an emergency, but my care may have to be adjusted by my parents or doctor. If you suspect that my blood sugar is high, please notify my parents.

Parties and Special Occasions

If possible, please let me or my parents know ahead of time if we are having a party or special event. Foods such as cake, candy, and other "sweets" are usually a part of these occasions. There are no "bad" foods. But if we know ahead of time, my parents may decide to send in a special food for me or adjust my treatment plan so I can have the same foods as everyone else. If a party is not planned, I can have a small portion of the food served instead of my regular snack.



Tools and Information for School Nurses

School Nurse Checklist for Diabetes Care at School

Date:

	1. School Nurse is notified that child with diabetes will be attending school.
	2. Arrange a meeting/home visit with parents/legal guardian and child and complete Individualized Healthcare Plan (IHP)
	a. Discuss current health status and management of diabetes-care at home.
	b. Observe parent/child performing health care procedures
	c. Discuss parent/child expectations of diabetes care while at school.
	d. Discuss level of care needed in school.
	e. Discuss role of the personnel involved in providing the health care at school.
	f. Obtain parent/guardian written consent to include the following: 1) To administer health care services for school attendance and school related activities 2) To allow the school nurse to communicate with the primary health care provider.
	g. Collaborate with parent to develop details of the Individualized Healthcare Plan (IHP), potential accommodations and all supplies needed during the school schedule, all school related activities and a 3-day disaster plan.
	h. Provide parent with copies of forms if desired.
	3. Obtain physician's specific prescribed written authorization for health care services and parent's written consent on the same form.
	4. Assemble procedures as identified in the IHP and review with site administrator. The administrator designates staff and back-up staff to be trained. This may occur before an IEP and/or 504 meeting is convened. Training can begin when parent written consent and physician's written authorizations have been received. Designated staff should not perform standard procedures needed until completion of training and competency is achieved. Interim arrangements may need to be made for child school attendance.
If a 504 Plan is requested or an IEP is determined to be necessary, follow step #5. If not, proceed to step #6.	
	5.
	a. When a 504 Child Study Team or an Individualized Education Plan Team meeting convenes, the team reviews the IHP and accepts and/or makes modifications/changes as agreed. A copy of the final IHP is attached to the 504 Plan or IEP.
	b. The assessment component of the 504 Plan or IEP must include a statement indicating the attachment of the IHP.
	c. The Designated Instructional Services (DIS) component of the 504 Plan or IEP must include School Nursing Services for managing the IHP and training and supervising designated staff.

6. Plan, Organize and Implement designated staff training regarding diabetes management health care procedures and implementation of the IHP:

a. **Plan:**

1) Review CPR dates of designated staff. Arrange for training if needed.

2) Develop a training program for designated staff. Include an agenda and time frame for components and sign-in form for documentation of training dates.

3) Plan an inservice for teachers, lunchroom and playground personnel, principal, transportation, coaches, bus drivers, etc. offering a condensed version of the training program emphasizing emergency diabetes care.

b. **Organize:**

1) Duplicate necessary training materials and assemble in orderly fashion for all participants in the training.

2) Develop and organize a schedule for training.

c. **Implement:**

1) Train all designated staff to level of 100% competency in knowledge and skills in performing standard healthcare procedures and child emergency response procedures.

2) Supervise and monitor staff performance of all procedures and child outcomes. Electronic availability of the school nurse to all trained staff is essential for adequate supervision and support (pager and cell phones for immediate response for problem solving and directions in emergencies).

3) Manage IHP: With parent input, monitor and review outcomes of plan and initiate necessary changes not requiring physician authorization. Maintain current records and authorizations for all changes requiring physician authorization. Inform and/or train designated staff of all changes in procedures and log event and dates.

4) Arrange a classroom presentation on diabetes if requested.

Care Planning

Care planning in the school has four components:

1. **Parent Conference.** A conference should be held with parents, and the school nurse to identify the child's needs, discuss components of the care plan, discuss ideas to include at the health care planning meeting.

2. **Planning Meeting.** This meeting of key staff should be held in the fall before the school year starts, or when a child is newly diagnosed.

3. **"Individual Care Plan."** The School Nurse, using information gathered at the planning meeting, should prepare the written plan. Key staff and the child's family must agree to the plan. The plan may be incorporated into a "504" plan if the child's needs will be covered by this legislation. See "Appropriate Accommodations Under Law" later in this chapter for a description of legislative rules that may apply to children with diabetes.

4. **Training.** The School Nurse should arrange for training for all school staff. The nurse should do the training with the assistance of the child's parents and/or invited members of the child's health care team. This may involve one or more sessions depending on the roles assigned to different people.

   NOTE: A list of resources that may help the school staff with care planning is included in the Resources section at the end of the appendices.

Training

Goals for training: Everyone mentioned in the plan knows their role in carrying out the plan, how it relates to the roles of others and when and where to seek help.

Preparation: Assess school personnel to determine their knowledge of and comfort level with caring for the child. Modify the training session accordingly.

Time: The initial session should take about 30 minutes. Some members of the staff may need additional individual training around their specific roles.

Attendance: Include all staff mentioned in the plan plus administrative and counseling staff and any others who may interact with the child during the school session.

Suggested Components of Training:

- Introduction to the child's individual care/health plan
- Type 1 diabetes: what it is, how it is managed (if not covered at planning meeting)
- Monitoring tools (blood glucose meter, written records, etc.) and techniques for those that do finger sticks
- Signs and symptoms of hypoglycemia and hyperglycemia
- Procedures for routine care of the individual child
- Emergency procedures
- Overview of universal health and safety guidelines (OSHA) and disposal of supplies
- Glucagon administration (for those named in the emergency plan)
- Insulin administration (if in the plan)

Adapted from Vermont Manual – Recommendations for Management of Diabetes in School

Staff Training Record

Staff Member Name	Date Training Received			Notes
	Diabetes Basics	Monitoring	Insulin and Glucagon	

Sample Memo to School

To: School Staff
From: The School Nurse
Subject: Children with Diabetes

Diabetes is chronic disease that results from the body's inability to use and store glucose, one of the body's energy sources. It is not contagious, but it is controllable.

There are two major types of diabetes (type 1 and type 2). Type 1 diabetes is the form usually seen in children. It occurs when the pancreas stops making insulin, the hormone that changes glucose into a usable form of energy. It is also the type of diabetes seen most commonly in children and is treated with daily injections of insulin, an individualized meal plan, and exercise.

In type 2 diabetes the body still produces some insulin, but not enough to convert glucose into energy. Type 2 diabetes is seen more often in adults.

Children with diabetes should not be considered different from other children. They can actively engage in all school functions and sports by following the health care plan designed by their physician and parents.

Insulin, food or meal plan and physical activity are essential components of successful diabetes management. It is important to be aware of insulin reactions that can result when an imbalance occurs between these three elements. When the blood sugar level is too low an insulin reaction can occur. Knowing the symptoms of low blood sugar can be very helpful in treating this reaction early and avoiding potentially serious problems. Early treatment is often giving the child sugar to raise the blood sugar level. Glucose tablets or cake decorating gel kept on hand can be used to treat low blood sugar (hypoglycemia). For additional information on signs, symptoms and treatment of low blood sugar refer to the attached resource on Hypoglycemia (low blood sugar).

Many children with diabetes need to eat prior to physical activity. Please allow the child time to eat a snack at that time as well as during the activity if their blood sugar begins to drop.

High blood sugar is usually not a concern at school. Sometimes there are serious complications of the disease, resulting from uncontrolled diabetes (i.e., high blood sugar). However, they do not come on suddenly. These complications are preventable with good planning, careful monitoring and all of us working together. Children with diabetes need to have liberal bathroom privileges and access to drinking water.

Children with diabetes usually follow a prescribed meal plan and may select their foods from the school lunch menu or bring their own lunch. Snacks may be necessary to help maintain balance.

The amount of sugar in the blood of a child with diabetes can be checked with blood sugar monitors. Checking the blood for sugar sometimes several times a day serves as an effective guide to proper diabetes control. Blood sugar checks should be made before meals, and time should be allowed before lunch and at other planned or needed times for the child to check their blood sugar according to their health care plan. (Some children self-check, others have alternate arrangements.)

Be sure and call me with any questions regarding this information.

Appropriate Accommodations Under Law

Any school receiving federal funding must accommodate the special needs of its children in order to assure them a "free, appropriate public education." Such accommodation should be documented in either a Section 504 plan or in an Individualized Education Program. (IEP)

Parents and school staff should work together to establish written documentation of accommodation explicitly detailing the specific needs of the child with diabetes.

Some of the Issues that a Written Plan Might Include:

1. Eating whenever and wherever necessary.
2. Going to the bathroom or water fountain as needed.
3. Participating fully in all extra-curricular activities, including sports and field trips.
4. Eating lunch at an appropriate time with enough time to finish eating.
5. Absence related to medical visits.
6. Assistance with blood glucose monitoring or insulin injections, where appropriate.
7. Opportunity to make up missed schoolwork or receive additional instruction when absent.

These are examples of some of the things to include in an individual plan. Consult members of the child's health care team when determining individual recommendations.

Handling the Child with Diabetes at School

http://www.childrenwithdiabetes.com/ Used by permission.

The child with diabetes needs to be treated like any other child. The only difference is that this child's body requires insulin from an external source to function properly. Remember the warning signs of low blood sugar and be ready to treat. Exercise helps the insulin work better. Involving the child in physical education (PE) and sports activities is highly desirable. It is important that the child develops exercise habits at a young age. The other children in the classroom, especially the child's friends, are often very eager to learn more about diabetes. Ask the child and parents how this might be discussed with the class. Even very young friends can help recognize low blood sugar reactions.

Things can be more comfortable for everyone when diabetes is not a secret.

Safety

It is the responsibility of the school to provide a safe environment for all children. School staff who are in direct contact with any child with diabetes should receive instructions about special needs as well as emergency action procedures.

Parties

The child with diabetes can participate in parties just like all the other children. If possible, notify the parent when a party will take place and include information about what food will be served so that they can decide with the child what he/she may have to eat.

Extra Curricular Activities

The child with diabetes should participate in all extra curricular activities. Notify the parents as soon as possible and invite them to the planning stage of the activity especially if this involves an overnight. The child's "diabetes supply pack" with a meter, insulin if needed, a snack source, and frosting or glucose gel for low blood sugar events should always accompany the child with diabetes on any field trip. Extra snacks need to be taken along in case lunch is delayed or the child gets more exercise than usual. An overnight activity will require insulin injections, so the parent may need to make special arrangements. The parent of a young child with diabetes may wish to help chaperon. Be sure this is ok with the child.

Sick Day Guidelines

IF A CHILD IS SICK HE/SHE SHOULD BE AT HOME. CALL PARENTS IMMEDIATELY!

Effect of Illness/Injury on Diabetes Control

- Illness places stress on the body and usually will have the effect of raising blood glucose levels.
- Flu type illness with nausea, vomiting and/or diarrhea can upset the electrolyte balance of the body, causing dehydration and possibly ketoacidosis.
- Injuries, like illness, also place a stress on the body and can have the effect of raising glucose levels.

Responsibilities of the School Personnel

- If possible determine the child's blood glucose level.*
- Give comfort measures as you would with any child without diabetes.
- If the glucose level is low or the child is showing symptoms of hypoglycemia, have the child take a sip only of a regular soda at 5-10 minute intervals. Small, frequent sips are often tolerated even by a child with nausea or vomiting.
- If the glucose level is high, or if symptoms of hyperglycemia are present the child can be given sips of sugar-free soda. If possible and if ordered, check for the presence of urine ketones.

If the child is unconscious, unresponsive or uncooperative, or severely injured, notify the appropriate emergency personnel immediately. Do not delay getting an emergency team by first obtaining a glucose level. This can be obtained after the emergency team is called.

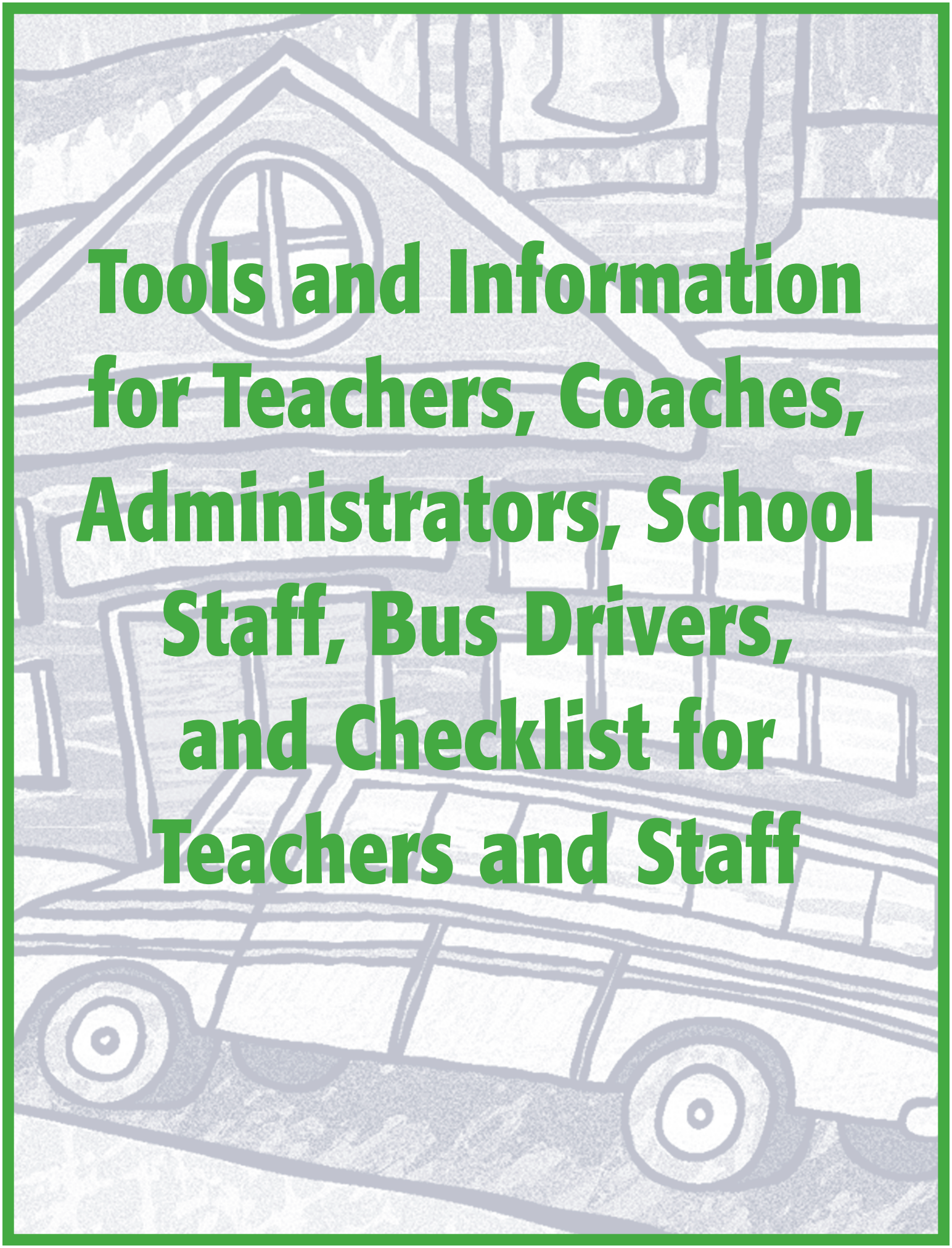
- If respirations are deep and labored, and if the child's breath smells fruity or like alcohol, the child may have ketoacidosis. Report to the parent, guardian or physician immediately.
- In cases of injury, administer the usual first aid measures as well as determining the blood glucose level.
- Notify the parents/guardian of the child's symptoms, injury, and blood glucose level. If unable to reach a parent, call the child's physician.

Adapted from American Diabetes Association

What To Put In A Sick Day Cupboard

Keep the following in a box marked "For Sick Days"

- A copy of "Sick Day Rules"
- Ketone strips
- Glucagon kit
- Thermometer
- Aspirin-free products such as liquid, chewables, and/or suppositories
- Broth or bouillon
- Can of soup
- Cans of soda–sugared and sugar-free
- Cans of concentrated juice (ones that do not need refrigeration)
- Gelatin–sugared and sugar-free
- Powered fruit drink–sugared and sugar-free
- Pedialyte or other rehydration product for very young children



Tools and Information for Teachers, Coaches, Administrators, School Staff, Bus Drivers, and Checklist for Teachers and Staff

Tools and Information for Teachers, Coaches, Administrators, School Staff and Bus Drivers

Considerations for the Teacher

- Participate in the health care planning meeting.
- Understand basic information about diabetes.
- Look for the following in the health care plan:
  - signs and symptoms of low blood sugar
  - how to prevent low blood sugar
  - how to treat low blood sugar
  - signs and symptoms of high blood sugar
  - food and snack requirements and routines
  - everyday blood sugar monitoring
  - respect for privacy
  - safety procedures
  - communication with parents, school nurse, and other children

Actions for Administrators

Children with diabetes may be covered by the Individuals with Disability Education Act and are covered by Section 504 of the Rehabilitation Act of 1973.

As such, these children should have a health care plan and as part of that plan consideration should be given to:

- self-monitoring of blood sugar
- treatment of low blood sugars
- carry treatments for low blood sugar
- administer insulin if indicated
- be allowed time for blood sugar monitoring and sufficient time for meals and snacks
- be allowed to fully participate in all activities with children who do not have diabetes
- bathroom privileges
- accommodations for absences

With prior planning these children can have normal lifestyles and positive school experiences. The suggestions listed below have been developed to offer you assistance and support to assure child with diabetes feel safe and secure in school.

- Participate in health care planning meeting.
- Assist in planning by helping to:
  - identify school personnel and parent expectations
  - support school health staff to educate others about diabetes
  - assist in access to other resources, such as school food service and extracurricular programs.

For more information on signs, symptoms and related activities, see the appropriate sections of this document.

Information for Food Service Personnel and Others Providing Food

Children who have diabetes may purchase meals from the school menu, bring their own lunches to the cafeteria or may participate in school events where food is provided. These children shouldn't be singled out. There are ways to help them select the right foods and make good food choices.

Diabetes Meal Plan

Most children with diabetes follow meal plans. The most typical systems are Carbohydrate Counting, and the Exchange System. Plans are prepared to meet the needs of each individual child. The type of meal plan used reflects the preference of the child's family and care-givers. As a rule the meal plan will follow the Food Guide Pyramid. The major difference, however, is that cheeses are in the protein groups and the bottom of the Pyramid is all carbohydrates, starches, grains, fruits and other milk products.

A meal plan is a healthy pattern of eating consisting of:

- ordinary foods
- consistent amounts
- regularly spaced intervals of eating

Items to Remember

- Lunch menus may need some replacements.
  - carbohydrates may need to be added or deleted
  - "sweet" desserts possibly replaced with fruit
- Most children with diabetes can make their own appropriate choice from a school lunch menu.
- Parents should review the school lunch menu in advance so they can help their child make appropriate choices.

Meal Timing

- It's very important that meals and snacks be eaten on time. The result can be a low blood sugar reaction, especially if the child missed a morning snack or was very active at recess or in PE class.
- Consider providing all the children in the class with a healthy snack at the same time. Snack suggestions include:
  - bread sticks
  - pretzels
  - bagels with low-fat cream cheese
  - muffins
  - graham crackers
  - saltine crackers
  - cereal
  - milk
  - frozen yogurt
  - fruit sorbet
  - fruit
  - fruit kabobs
  - fruit with plain yogurt
  - popcorn
  - crackers with peanut butter or cheese
- If meal times are delayed, an extra snack should be available.
- Be familiar with the signs, symptoms, and treatment of low blood sugar emergencies.
- Have a list of appropriate snacks on hand for use in these situations.

Parties and Other Special Occasions Involving Food

- It is important for children with diabetes to participate in all celebrations and events.
- **The child with diabetes can usually have the same treats as the child who doesn't have diabetes provided the treat is figured into the diabetes meal plan.**
- Be sure the child's parents are aware of the party.

Actions for Bus Drivers

General Role:

- Learn about diabetes.
- Promote a supportive learning environment.
- Treat the child normally and help other children to do the same.
- Understand one's own role and the role of others.
- Know what to do in an emergency and the order of responsibility for emergency care.
- Know the phone numbers of the child's parents and physician.

Specific Responsibilities:

- Learn to recognize the signs and symptoms of low and high blood sugar and be able to respond in accordance with the emergency plan.
- Know that the end of the school day is often the time of low blood glucose episodes.
- Communicate diabetes-related needs to substitute drivers and transportation assistants.
- Allow the child to consume a snack on the bus as indicated in their plan. Keep a food kit, provided by the family, readily available on the bus. (Refill as needed.)
- Keep a "low-pack" food kit, provided by the family, readily available on the bus. Items that may be included are: glucose gel, juice boxes, cake gel, life savers etc. Replace items when used.

Adapted from Vermont manual – Recommendations for Management of Diabetes

Hypoglycemia Checklist for Teachers/Staff:

LOW BLOOD SUGAR (HYPOGLYCEMIA)

Low blood sugar (hypoglycemia) is defined as a blood sugar level tested less than 60 mg/dl. The child may feel "low" and show any of the symptoms below. A low blood sugar episode does not feel good and may be frightening for the child. **Low blood sugar can develop within minutes and requires immediate attention! Never send a child with suspected "low blood sugar" anywhere alone!** The buddy system may work well for this–the child picks two friends to help take him/her to the health office, should the situation arise.

Causes			
	Late food or too little food Too much exercise Too much insulin A planned or unplanned activity without additional food		
Symptoms/signs	**Mild**	**Moderate**	**Severe**
	Hungry Shaky Dizzy Sweaty Pale Increased heart rate Anxiousness Weakness, tiredness Irritability Inability to concentrate Personality change	Headache Behavior changes Poor coordination Confusion Blurry vision Weakness Slurred speech	Loss of consciousness Seizure

Symptoms can vary per child as well as per hypoglycemic event, particularly at different ages. Often children will not have an awareness of low blood sugar symptoms until they are 7 or 8 years of age.

Management	**Mild**	**Moderate**	**Severe**
	Child treats self	Someone assists.	Call 911.
	Ingests quick sugar source such as: 2-3 glucose tabs or 4-8 oz. Juice or Glucose gel or 4-8 oz regular (not diet) soda or 3-8 Lifesavers	Insist on child swallowing quick sugar source as listed under mild management.	Position on side, if possible. Don't attempt to give anything by mouth.

Follow-up management for mild or moderate low blood sugar: Wait 10-15 minutes. Repeat food if symptoms persist or blood sugar remains less than 60, if known. Follow with snack of carbohydrate and protein (e.g., crackers and cheese) if it is more than _ hour until the next meal.

If you have a way to check blood sugar, do so – BUT ALWAYS, WHEN IN DOUBT, TREAT.

- **Send for help if unsure of what to do.**
- **If child is unconscious or unable to swallow, DO NOT try to feed. Place on side and call 911. After 911 has been called, the office should contact parents.**

Acknowledgement: Washington State Task Force for Children with Diabetes

Hyperglycemia Checklist for Teachers/Staff:

HIGH BLOOD SUGAR (HYPERGLYCEMIA)

High blood sugar (hyperglycemia) is defined as a blood sugar level greater than 240 mg/dl. It occurs over time, hours and days, and indicates the need for evaluation of management. Children who will be checking their blood sugars at various times during the day are generally able to self-treat. However the child may require occasional assistance. Note that **undiagnosed** children may exhibit some or all of the following signs, including weight loss.

Causes			
	Too much food Too little insulin Decreased activity Illness Infection Stress		
Symptoms/signs	**Mild**	**Moderate**	**Severe**
	Thirst Frequent urination Fatigue/sleepiness Increased hunger Loss of concentration Blurred vision Sweet breath Urine ketones (varies from 0 to small)	Dry mouth Nausea Stomach cramps Vomiting Urine ketones (moderate to large)	Labored breathing Very weak Confused Unconscious Urine Ketones (moderate to large)
Management	**Mild**	**Moderate**	**Severe**
	Drink zero-calorie fluids (i.e., water). Decrease activity, if ketones present. Check urine ketones, if test strips available	Drink zero-calorie fluids, as tolerated. Check urine ketones, if test strips available. Decrease activity. Call doctor. Antinausea suppository, if prescribed.	Call 911.

Child may need to use the bathroom frequently AND should be allowed to do so. High blood sugar is characterized by excessive thirst. It is important to drink plenty of water and it may be helpful for the child to use a water bottle in the classroom. School district or classroom policy may need to be amended for these accommodations.

Acknowledgement: Washington State Task Force for Children with Diabetes

Appendix

SAMPLE LETTER
FROM MD TO SCHOOL PERSONNEL

Date: _____

TO WHOM IT MAY CONCERN:

Re: _____

This child has type 1 diabetes mellitus and is currently on _____and _____ insulin. It is necessary for them to check their blood sugars prior to lunch each day and at anytime they have symptoms of hypoglycemia or hyperglycemia. They may need to take Regular, Lispro (Humalog) or Aspart (Novolog) insulin while at school per their prescribed algorithm.

This child should also have Glucagon available to be administered at the time of a severe hypoglycemic reaction when they are unresponsive or may choke on oral treatments. Otherwise, they should have food available to treat hypoglycemia (i.e. juice, glucose tabs, treatments in not less than 15 gm amounts). Parents/guardians are responsible for maintaining supply of snacks, food/beverages to treat hypoglycemia and Glucagon Kit.

I would be happy to help with any questions or concerns.

Sincerely,

_____ _____

Certified Diabetes Educator Signature Primary Care Physician Signature

Authorization for Release of Medical Information

To: _____

(Doctor's Name)

From: _____

_____

(Your Name and Address)

Please send information about my child: _____

Date of Birth: _____/ _____/ _____

To: _____

_____

Information to be sent:

- ☝ Problem list only
- ☝ An update on _____
- ☝ Ongoing progress on _____
- ☝ Consultation by school nurse _____

_____

(Signature of Parent/Guardian)

Adapted from Vermont Manual – Recommendations for Management of Diabetes for Children in School

Prescription Medication Order and Permission to Administer Medication and to Check Blood Sugar Form

(To be returned to the school nurse)

From time to time, it may be necessary for your child to take prescription medicine for treatment of an illness. Medicines that are ordered to be taken less than 4 times a day can and should be taken at home. However, if medicine must be taken 4 times a day, or at a specific time scheduled during school hours, the school nurse, as mandated by state law, may dispense medications **ONLY WITH THE FOLLOWING:**

1. Medication order, signed by the physician
2. Parental authorization, signed by the parent
3. Original pharmacist labeled bottle

MEDICATION ORDER

Child: _____ Date of Birth: ____ / ____ / ____
Medication: _____
Directions: _____
Reason for giving: _____
Date: ____ / ____ / ____ Telephone number of physician: _____

_____
(Signature of Physician)

PERMISSION TO ADMINISTER

Date: ____ / ____ / ____ I hereby give my permission for _____ to take the above prescription at school as directed.

_____
(Signature of Parent/Guardian)

PERMISSION TO CHECK BLOOD SUGAR LEVEL

Date: ____ / ____ / ____ I grant permission for the school nurse to check my child's blood sugar level at school at designated times or during a crisis or emergency situation.

_____
(Signature of Parent/Guardian)

Date: ____ / ____ / ____ I grant permission for the school nurse to check this child's blood sugar level at designated times or during a crisis or emergency situation.

_____
(Signature of Physician)

Adapted from Vermont Manual – Recommendations for Management of Diabetes for Children in School

Statement for Children Requiring Modification of School Meals

Name of Child: _____ Birth date: _____
Name of Parent/Guardian: _____ Daytime Phone: _____
Disability or Medical condition requiring modification of school meals: _____

_____

_____

Major life activity affected by child's disability (please check all that apply):

- ☝ caring for one's self
- ☝ eating
- ☝ performing manual tasks
- ☝ walking
- ☝ seeing
- ☝ hearing
- ☝ speaking
- ☝ breathing
- ☝ learning
- ☝ working

☝ Restricted Nutrition	☝ Increased Nutrient	☝ Modified Texture
☝ Calorie ☝ Controlled Carbohydrate ☝ Protein ☝ Sodium ☝ Fat/Cholesterol	☝ Calorie ☝ Protein ☝ Fiber ☝ Other	Describe required modification: _____ _____ _____ _____

☝ Foods to be omitted from the diet	
List all that apply:	Foods that may be substituted:

_____

Special Utensils Needed:

_____

Tube Feeding Required:

_____

Other Accommodations needed:

_____

For child with a disability: Signature of Physician: Date:

_____

For non-disabled child: Signature of Other Medical Authority: Date:

Adapted from Vermont Manual – Recommendations for Management of Diabetes for Children in School

Diabetes Flow Sheet

Name: _____ Grade: _____

School: _____

Medication and Dosage: _____

Frequency and Time: _____ Date Begun: _____ Date to end: _____

Prescriber's Name: _____ Telephone: _____

Parent's Name: _____ Telephone: _____

Date	Time	Fingerstick	Insulin Coverage	Comments	Initials

_____

Signature/Initials:

Sample Child Accommodation Plan

Child Name: _____DOB: _____ Grade:_____

Case Manager: _____School: _____

Date of Meeting: _____ / _____ / _____

1. Describe the nature of the concern:
   Type 1 diabetes

2. Describe the basis for the determination of disability:
   Type 1 diabetes is a physiological disorder that affects the endocrine system.

3. Describe how the disability affects a major life activity:
   The child is at risk for hypoglycemic and hyperglycemic episodes related to her/his metabolic dysfunction.

4. Describe the reasonable accommodations that are necessary:
   - Perform or receive assistance with blood glucose monitoring
   - Treat or receive assistance with treatment of hypoglycemic episodes (glucose and or Glucagon as prescribed)
   - Treat or receive assistance with treatment of hyperglycemic episodes (inject insulin if ordered and drink water)
   - Eat whenever and wherever necessary
   - Have free and unrestricted access to water and the bathroom
   - Participate fully in physical education (gym class) and other extracurricular activities, including field trips.

Review/Reassessment Date: ____ / ____ / ____

Participants Name: _____ Title: _____

Adapted from Vermont Manual – Recommendations for Management of Diabetes for Children in School

PERSONNEL GUIDELINES FOR CARE OF CHILD WITH DIABETES IN THE SCHOOL SETTING									
	SKILL/TOPIC	**WHO CAN DO IT**						**WHERE (LOCATION)**
		Child ✱	Parent/Family ☆	Licensed Staff ✚	Designated Adult ❁	Designated Staff ◀	Any School Staff ■	
I.	**BLOOD GLUCOSE TEST**							
	1. Check to be performed prior to meals (not snacks). 2. The following can be performed by those marked with an X: • Piercing skin/performing blood sugar monitoring. • Verifying number on meter. • Interpreting results.	X	X	X	X	X		Can occur at any preapproved location (e.g., classroom, health room) as long as plan in place for blood containment/clean up and sharps disposal. This must comply with infectious disease control plan. The procedure should not be disruptive of class routine or other children. Provision for easy access storage of supplies must be made.
						X		
		X	X	X	X	X		
		X	X	X	X	X		
		X	X	X	X			
	3. Check if symptomatic (high or low blood sugar), if possible.	X	X	X	X	X		Same as above.
		Licensed staff may not be available						
	4. Check if during special events (extended day, field trip.	X	X	X	X	X		Same as above.
II.	**INSULIN INJECTION**							
	1. Prior to meals). Requires HCP order. Sliding scale can be adjusted by nurse/parent consultation within ordered HCP parameters.	X	X	X	X	X		Can occur at any preapproved location (e.g., classroom, health room) as long as plan in place for blood containment/clean up and sharps disposal. This must comply with infectious disease control plan. The procedure should not be disruptive of class routine or other children.
	2. The following can be performed by those marked with an X: a. Drawing up syringe and administering insulin. b. Verifying dose on syringe (not an insulin pen). c. Verifying number on insulin pen syringe.					X		Provision for storage of medication and supplies must be made.
		X	X	X	X	X		
		X	X	X	X	X		
		X	X	X	X	X		
	3. Extra injections: Those needed as determined by testing done <u>other</u> than before meals.	X	X	X	X			Same as above.
		Licensed staff may not be available.						

PERSONNEL GUIDELINES FOR CARE OF CHILD WITH DIABETES IN THE SCHOOL SETTING									
III.	**SKILL/TOPIC**	**WHO CAN DO IT**						**WHERE (LOCATION)**
	LOW BLOOD SUGAR (HYPOGLYCEMIA)	Child ✷	Parent/Family ☆	Licensed Staff ✚	Designated Adult ❁	Designated Staff ▲	Any School Staff ■	
	1. Mild and Moderate: Follow treatment plan.	X	X	X	X	X	X	Can and must be treated anywhere.
	2. Severe: If unconscious or unable to swallow: **Call 911. (Only licensed staff can give glucagon!)**	X	X	X	X	X	X	Can and must be treated anywhere and follow IHP/504 plan
IV.	**HIGH BLOOD SUGAR (HYPERGLYCEMIA)**							
	1. Extra insulin to be determined by HCP's order for sliding scale.	X	X	X	X			Same as for insulin injections
	2. Urine ketone test if supplied by parent and ordered by HCP and part of child's IHP/Section 504 plan.							
		X	X	X	X	X		
		Licensed staff may not be available						Health room or designated private bathroom.
V.	**SNACKS**							
	1. Parent provided. 2. School provided if child has an IEP.	X	X	X	X	X	X	As needed where needed.
VI.	**ILLNESS**							
	1. Per *Infectious Disease Control Guide* for school staff. If vomiting, monitor for low blood sugar (hypoglycemia). Call parents.	X	X	X	X	X	X	

✷ **Child's Developmental Ability:** The child possesses the cognitive, emotional, behavioral, motor skills, and physical maturity necessary to perform the required activity and can demonstrate it consistently and across multiple settings. A release should be included that is signed by the parent, HCP, and school nurse.

☆ **Parent/Family:** Includes parent, guardian, or designated family member. If the family member is less than 18 years of age, the parents, HCP, school administrators, and school nurse should determine if it is appropriate and safe for the family member to provide the care.

✚ **Licensed Staff:** Must be a RN or LPN. **A HCP's order is required for licensed person to test or inject.**

❁ **Designated Adult:** Cannot be a school employee. Adult must have legal authority (power of attorney for health care and hold harmless statement with district)

▲ **Designated Staff:** School employee **trained and supervised** by RN who has delegated the tasks such as verifying numbers on glucose meter. A release should be included that is signed by the parent and school nurse.

Acknowledgement: Washington State Task Force for Children with Diabetes
(Revised per Montana State Board of Nursing).

Sample – 504 Plan for the School Year

Child Name: _____ Date of Birth: _____ Grade: _____

Case Manager: _____ Date of Disability Determination: _____

Area of disability that "substantially limits a major life activity" Description of how this disability limits a major life activity.

- Mary has type 1 diabetes mellitus. This is a condition in which the pancreas is unable to make insulin. Without insulin, the body cannot change glucose (sugar) into the energy a person needs. To compensate for the lack of natural insulin, she must take daily insulin injections, usually at home but sometimes in school.
- Mary's daily insulin injections must be balanced with her meals, snacks and regular physical activity. To consistently achieve this balance, she must eat daily snacks and meals on a regular schedule. During the school day she must check her blood sugar before lunch, and physical education class, as well as when her body tells her blood sugar is low or too high.
- While Mary is achieving independence in self-management of her diabetes, the adults who work with her will need to be supportive and understanding about the daily regimen. Her self-care needs will be integrated into the school day so there are minimal interruptions in the learning environment.
- Mary is generally responsible and independent about her blood sugar tests, diet, and necessary equipment. The adults in the school community will help by reminding Mary to bring her pack on all out-of-school trips and to keep it with her when she is away from the classroom for extended periods of time. Mary will need this reminder especially before special events.
- Mary's blood sugar levels affect the way she learns.
- Mary's behavior is related to blood sugar levels. She can feel "racy" and excited when her blood sugar is high, tired and "spacey" when it is low.
- Mary usually recognizes when she is having a low blood sugar and can ask someone to accompany her to RN's office, her locker, the bathroom etc; however, there may be times she is unable to recognize them and those around her must be watchful for signs and symptoms of low blood sugar.
- When Mary is excited and/or stressed as in a testing situation, her blood sugar can potentially go up. When her blood sugar is high (over 200) her body responds by trying to decrease this sugar level. She may become thirstier as her body is acting to dilute or flush out the extra sugar. She needs to drink more water and then urinate more frequently.
- The learning environment is altered when Mary must stop an activity to test her blood sugar, go to the bathroom, eat a snack or get a drink of water.
- Mary must continuously remind herself to monitor her blood sugar at appropriate times, to eat/exercise regularly and to bring supplies with her. This self-monitoring is a big task and is a distraction in itself.

Adapted from Vermont Manual – Recommendations for Management of Diabetes for Children in School

2001 Quick Reference Guide to the American Diabetes Association's Standards Care*

(Updated using "2002 Clinical Practice Guidelines")

PHYSICAL ASSESSMENT

Visits: Continuing care visits every six months are appropriate to meet patient's needs and treatment goals

Blood Pressure: Every continuing care visit. Goal is <130/80. **

Weight: Every continuing care visit; establish growth chart for children.

Comprehensive Foot Exam (adults): At least yearly (more often in patients with high-risk foot conditions).

Eye Exam: Yearly dilated funduscopic exam (or retinal photography); if diagnosed at age 29 or earlier, the initial eye exam should be performed within 3-5 years of diagnosis once patient is age 10 or older.

LABORATORY TESTS

HbA1c (hemoglobin A1c blood test): 2 times per year if stable; quarterly if not meeting goals. Adjust goals to prevent serious hypoglycemia. Target goal is <1% above upper limit of normal (e.g. <7.0% for a HbA1c assay with an upper limit of normal of 6%). A value of >2% e.g., >8% for HbA1c) above upper limit of normal requires greater attention. **

Urine Protein (adults): Microalbumin measurement annually (in the absence of previously demonstrated microalubinuia).

Lipid Profile (adults): Yearly. Target goals **: total cholesterol <200 mg/dl, and triglycerides <150 mg/dl, LDL-C <100 mg/dl, HDL-C >45 mg/dl in men and >55 mg/dl in women.

SELF-MANAGEMENT TRAINING

General Principles: Review goals at every continuing care visit. Conduct comprehensive assessment yearly to include patient's understanding of diabetes self-monitoring of blood glucose (SMBG), acute and chronic complications.

Medical Nutrition Therapy: Review goals at every continuing care visit. Conduct comprehensive assessment yearly to include meal planning, reading food labels, weight control.

SMBG: Should be performed as appropriate to meet goals.

Physical Activity: Review goals at every continuing care visit. Conduct comprehensive assessment yearly to include frequency and duration of activity and physical limitations.

SPECIAL SITUATIONS

Hypoglycemia: Recurrent hypoglycemia calls for reassessment of treatment plan. Additional action suggested might include enhanced diabetes self-management education, co-management with a diabetes team, referral to an endocrinologist, change in pharmacological therapy, initiation or increased SMBG, or more frequent contact with the patient.

Preconception Counseling: Begin counseling at puberty; enhance counseling with adolescence; consult with high-risk perinatal program when appropriate.

Pregnancy Management: Intensify glycemic control; consult with high-risk perinatal programs when appropriate.

Smoking Cessation: Emphasize and assist as much as possible.

Aspirin Therapy: Enteric-coated aspirin (75-325 mg/day) as secondary prevention for CVD. Consider for primary prevention in high-risk patients (e.g., family history, smoking, hyperlipidemia, hypertension, albuminuria).

** These guidelines have been condensed from the American Diabetes Association's Standards of Medical Care for People with Diabetes. They do not reflect all the actions that should be provided by health professionals in the medical management of diabetes. Full text of the Association's Clinical Practice Recommendations, including the Standards of Medical Care, is available at www.diabetes.org.*

*** If the patient is not making satisfactory progress toward treatment goals within a reasonable period (3-6 months), medical management should be enhanced. Greater attention to self-management education, co-management with a diabetes team, referral to an endocrinologist, change in pharmacologic therapy, initiation of or increased SMBG, or more frequent contact with the patient, are examples of actions that should be considered.*

Diabetes Internet Links

About Diabetes –
Basic diabetes care information
http://www.diabetes.com/ABOUT.HTM

American Diabetes Association
An organization devoted to diabetes cures & cares
http://www.diabetes.org/default.asp

American Diabetes Association Serving Oregon and Clark County, Washington
http:/diabetes.org/adaor/kids

Barbara Davis Center for Childhood Diabetes
Childhood diabetes issues
http://www.uchsc.edu/misc/diabetes/bdc.html

Center for Food Safety & Applied Nutrition
Nutritional Information
http://vm.cfsan.fda.gov/

Centers for Disease Control
Diabetes and Public Health Resource
http://www.cdc.gov/nccdphp/ddt/ddthome.htm

Children with Diabetes
Issues for diabetic children
http://www.childrenwithdiabetes.com/

Curediabetes
Diabetes endocrinological information
http://www.curediabetes.org/index.html

Diabetes Control Center
Information on good diabetes control
http://www.dr-diabetes.com/

Diabetes Dictionary
Diabetes terminology
http://www.niddk.nih.gov/health/diabetes/pubs/dmdict/dmdict.htm

IDC Publishing
International Diabetes Center
http://www.idcpublishing.com/

Juvenile Diabetes Research Foundation
An organization devoted to diabetes cures & cares
http://www.jdrf.org/

National Center for Chronic Disease Prevention and Health Promotion
http://www.cdc.gov/nccdphp/

National Diabetes Education Program
Joint program of NIH and CDC
http://ndep.hih.gov/

National Diabetes Information Clearinghouse
Patient education to statistical data
http://www.niddk.nih.gov/health/diabetes/ndic.htm

PADRE Foundation (Pediatric Adolescent Diabetes Research Education)
Great resource information and diabetes curriculum for schools
http://www.pedsonline.org

The Joslin Diabetes Center
http://www.joslin.org

DISCLAIMER: *The information provided by or accessed through the following links should not be used as a substitute for the knowledge skill or advice of qualified physicians and health care providers. To help you manage the vast amount of information on the web we offer the following list of resources. Our purpose is to support your search for knowledge and encourage further exploration of information available. These links are provided for your convenience and do not represent an endorsement by the Montana Diabetes Project.*

Directory of Diabetes Organizations

This directory lists government agencies, voluntary associations, and private organizations that provide diabetes information and resources. Some of these diabetes organizations offer educational materials and support to people while others primarily serve health care professionals.

Department of Health and Human Services

National Institutes of Health (NIH)

National Institute of Diabetes and Digestive and Kidney Disorders (NIDDK)
Home page: http://www.niddk.nih.gov

- Government's lead agency for diabetes research
- Funds six Diabetes Research and Training Centers

National Diabetes Information Clearinghouse (NDIC)
1 Information Way
Bethseda, MD 20892-3560
Tel: (301) 654-3327
Fax: (301) 907-8906
E-mail: ndic@info.niddk.nih.gov
Home page: http://www.niddk.gov

National Eye Institute (NEI)
National Eye Health Education Program
Box 20/20
Bethseda, MD 20892
Tel: (800) 869-2020 (for health professional only)
or (301) 496-5248
Fax: (301) 402-1065
E-mail: 2020@b31.nei..nih.gov
Home page: http://www.nei.nih.gov

National Heart, Lung, and Blood Institute (NHLBI) Information Center
P.O. Box 30105
Rockville, MD 2084-0105
Tel: (301) 592-8573
Fax: (301) 592-8563
E-mail: nhlbiic @dgsys.com
Home page: http://www.nhlbi.nih.gov/health/infoctr/

Centers for Disease Control and Prevention (CDC)
Division of Diabetes Translation
National Center for Chronic Disease Prevention and Health Promotion
Mail Stop K-10
4770 Buford Highway NE
Atlanta, GA 30341-3717
Tel: (800) CDC-DIAB
Fax: (301) 562-1050
E-mail: diabetes@cdc.gov
Home page: http://www.cdc.gov/diabetes
Home page includes facts sheets, statistics, publications, and information about State diabetes control program

Indian Health Service (IHS)
Indian Health Service Headquarters
Diabetes Program
5300 Homestead Road NE
Albuquerque, NM 87110
Tel: (505) 248-4236
Fax: (505) 248-4188
Http://www.his.gov/

Office of Minority Health Resource Center (OMH-RC)
P.O. Box 37337
Washington, DC 20013-7337
Tel: (800) 444-6472
Fax: (301) 589-0884

Department of Veterans Affairs

Veterans Health Administration (VHA)
Program Chief Diabetes
Veterans Health Affairs
810 Vermont Avenue NW
Washington, DC 20420
Tel: (202) 273-8490
Fax: (202) 273-9142

Professional and Voluntary Associations

American Association of Clinical Endocrinologists (AACE)
1000 Riverside Avenue, Suite 205
Jacksonville, FL 32304
Tel: (904) 353-7878
Fax: (904) 353-8185
Home page: http://www.aace.com

American Association of Diabetes Educators (AADE)
100 West Monroe, 4th floor
Chicago, IL 60603
Tel: (312) 424-2426
Fax: (312) 424-2427
Diabetes Educator Access Line:
(800) TEAMUP4 (800-832-6874)
Home page: http://www.aadenet.org

American Diabetes Association (ADA)
American Diabetes Association
National Service Center
1701 North Beauregard Street
Alexandria, VA 22311
Tel: (703) 549-1500 (National Service Center), also
(800) 232-3472 or (800) 342-2382 (800 DIABETES)
Fax: (703) 549-6995
Home page: http://www.diabetes.org

American Dietetic Association (ADA)
216 W. Jackson Boulevard, Suite 800
Chicago, IL 60606-6995
Tel: (312) 899-0040
Fax: (800) 877-1600
Home page: http://www.eatright.org
Diabetes Care and Education Dietetic Practice Group (DCE)
For more information contact the American Dietetic Association

American Heart Association
Resources related heart health and disease, including medical information and contacts.
http://www.americanheart.org/
Tel: (800)242-8721

National Center for Nutrition and Dietetics, Consumer Nutrition Hotline (part of the American Dietetic Association)
Tel: (800) 366-1655
Home page: http://www.eatright.org

Diabetes Action Research and Education Foundation
426 C Street, NE
Washington, DC 20002
Tel: (202) 333-4520
Fax: (212) 785-9595
Home page: http://www.daref.org

International Diabetes Federation (IDF)
Rue Defacqz 1
B-1000 Brussels, Belgium
Tel: 32-2/538-5511
Fax: 32-2/538-5114
E-mail: idf@idf.org
Home page: http://www.idf.org

International Diabetes Athletes Association (IDAA)
1647 West Bethany Home Road #B
Phoenix, AZ 85015
Tel: (800) 898-4322 or (602) 433-2113
Fax: (602) 433-9331
E-mail: idaa@getnet.com
Home page: http://www.diabetes-exercise.org

Juvenile Diabetes Research Foundation International (JDRF)
120 Wall Street
New York, NY 10005
Tel: (800) 533-2873 or (212) 785-9500
Fax: (212) 785-9595
E-mail: info@jdfcure.com
Home page: http://www.jdfcure.com

National Certification Board for Diabetes Educators (NCBDE)
330 East Algonquin Road, Suite # 4
Arlington Heights, IL 60005
Tel: (847) 228-9795
Fax: (847) 228-8469

National Kidney Foundation, Inc. (NKF)
30 East 33rd Street
New York, NY 10016
Tel: (800) 622-9010 or(212) 889-2210
Fax: (212) 689-9261 or (212) 779-0068

National Information Center for Children and Youth With Disabilities
PO Box 1492
Washington, DC 20013
Information about individualized education program or section 504 accommodation plan
Tel: (800) 695-0285

Pedorthic Footwear Association (PFA)
9861 Broken Land Parkway, Suite 255
Columbia, MD 21046-1151
Tel: (410) 381-7278 or (800) 973-8447
Fax: (410) 381-1167

Private Organizations

Barbara Davis Center for Childhood Diabetes
University of Colorado
4200 East Ninth Avenue, Box B140
Denver, CO 80262
Tel: (303) 315-8796
Fax: (303) 315-4124
Homepage: http://www.uchsc.edu/misc/diabetes

International Diabetes Center (IDC) Institute for Research and Education Health System Minnesota
3800 Park Nicollet Boulevard
Minneapolis, MN 55416-2699
Tel: (612) 993-3393
Fax: (612) 993-1302
E-mail: frueh@found.hsmnet.com

Joslin Diabetes Center
One Joslin Place
Boston, MA 02215
Tel: (617) 732-2400
Home page: http://www.joslin.harvard.edu

PADRE foundation (Pediatric Adolescent Diabetes Research Education)
455 South Main Street
Orange CA 92868
Tel: 714-532-8330
http://www.pedsonline.org

Montana Resources

Montana Diabetes Project
Department of Public Health and Human Services
PO Box 202951
1400 Broadway, Room C317
Helena, MT 59620
406-444-6677
http://ahec.msu.montana.edu/diabetes

Office of Public Instruction
1227 11th Avenue, 2nd Floor
PO Box 202501
Helena, MT 59620
406-444-3095

American Diabetes Association
Montana Chapter
2525 6th Avenue North
Billings, MT 59101
406-256-0616

Juvenile Diabetes Research Foundation
PO Box 998
Lincoln, MT 59639
W: 406-362-4246
lroberson@montana.com

MT Chapter American Association of Diabetes Educators
Call Montana Diabetes Project 406-444-6677 for more information

Billings Area Indian Health Services
2900 4th Avenue North
Billings, MT 59101
Tel: (800) 277-5997

Veterans Administration Center – Montana Office
406-442-6410

Montana ADA Recognized Diabetes Education Programs

Facility: **St. Vincent Healthcare**
Program Name: Diabetes Self-Management Education Program
Address: 2019 Broadwater
City, State, Zip: Billings, MT 59102
Phone: 406-237-8500

Facility: **Billings Internal Medicine & Diabetes**
Program Name: Diabetes Self-Management Education Program
Address: 2019 Broadwater
City, State, Zip: Billings, MT 59102
Phone: 406-238-8500

Facility: **Kalispell Regional Medical Center**
Program Name: Diabetes Education Program
Address: 310 Sunnyview Lane
City, State, Zip: Kalispell, MT 59901
Phone: 406-751-5454

Facility: **Community Medical Center**
Program Name: Diabetes Management Program
Address: 2827 Fort Missoula Road
City, State, Zip: Missoula, MT 59804
Phone: 406-327-4325

Facility: **Deaconess Billings Clinic**
Program Name: Diabetes Self-Management Program
Address: 2825 8th Avenue North
City, State, Zip: Billings, MT 59107
Phone: 406-238-2569

Facility: **Bozeman Deaconess Hospital**
Program Name: Outpatient Diabetes Self-Management Education Program
Address: 915 Highland Boulevard
City, State, Zip: Bozeman, MT 59715
Phone: 406-585-5043

Facility: **Great Falls Clinic**
Program Name: Diabetes Self-Management Education Program
Address: 1400 29th Street South
City, State, Zip: Great Falls, MT 59405
Phone: 406-454-2171

Facility: **St. Patrick Hospital & Health Sciences Center**
Program Name: Diabetes Care Self-Management Program
Address: 500 West Broadway
City, State, Zip: Missoula, MT 59802
Phone: 406-329-2603

Facility: **St. Peter's Hospital**
Program Name: Diabetes Self-Management Program
Address: 2475 Broadway
City, State, Zip: Helena, MT 59601
Phone: 406-444-2116

Facility: **St. John's Lutheran Hospital**
Program Name: Diabetes Education Program
Address: 401 Louisiana Avenue
City, State, Zip: Libby, MT 59923
Phone: 406-293-0100

Facility: **Barrett Hospital & Healthcare**
Program Name: Barrett Diabetic Management Program
Address: 1260 S. Atlantic Street
City, State, Zip: Dillon, MT 59725
Phone: 406-683-3041 ext. 2

Facility: **Frances Mahon Deaconess Hospital**
Program Name: FMDH Diabetes Loving Care Program
Address: 621 3rd Street South
City, State, Zip: Glasgow, MT 59230
Phone: 406-228-3627

Facility: **St. John's Lutheran Hospital**
Program Name: Diabetes Education Program
Address: 401 Louisiana Avenue
City, State, Zip: Libby, MT 59923
Phone: 406-293-0100

Facility: **Livingston Healthcare**
Program Name: Community Health Partners
Address: 126 South Main Street
City, State, Zip: Livingston, MT 59047
Phone: 406-222-2587

Facility: **Livingston Healthcare**
Program Name: Park Clinic
Address: 1001 River Drive - P.O. Box 1139
City, State, Zip: Livingston, MT 59047
Phone: 406-222-2690

Facility: **Holy Rosary Healthcare**
Program Name: Diabetes Self-Management Education Program
Address: 2600 Wilson Street
City, State, Zip: Miles City, MT 59301
Phone: 406-233-2570

Facility: **Mountainview Medical Center**
Program Name: Bair Medical Clinic
Address: 16 West Main
City, State, Zip: White Sulphur Springs, MT 59645
Phone: 406-547-3321

Facility: **Northeast Montana Health Services**
Program Name: Diabetes Education Program
Address: 301 Knapp Street
City, State, Zip: Wolf Point, MT 59201
Phone: 406-653-6583

Indian Health Service Diabetes Education Programs

Facility: **Rocky Boy Diabetes Center**
Address: RR 1 Box 664
City, State, Zip: Box Elder, MT 59521
Phone: 406-395-4486

Check the American Diabetes Association website for updated information on education programs in Montana.

Publications

The ADA Guide to Healthy Restaurant Eating
Hope S. Warshaw, MMS, RD, CDE

A Book for Coloring and Learning About Diabetes
H. Peter Chase, MD
Barbara Davis Center for Childhood Diabetes

The Diabetes Snack Munch Nibble Nosh Book
Ruth Glick

Diabetic Low-Fat & No-Fat Meals in Minutes!
M.J. Smith, R.D.

Everyone Likes to Eat: How Children Can Eat Most of the Foods They Enjoy and Still Take Care of Their Diabetes
Hugo J. Holleroth, Ed. and Debra Kaplan, R.D., M.S., with Anne Marie Bertollie, M.B.., R.D., C.D.E.

Exchange It: An Aid to Diet Control in Diabetes
Rita Clark, L.P.N.

The Kids, Food & Diabetes Family Cookbook
Gloria Loring

Month of Meals: Classic Cooking
Month of Meals: Meals in Minutes -
Recipes for Diabetics
Billie Little

Baby-Sitters Club Truth About Stacey
Ann M. Martin

Baby-Sitters Club Stacey's Emergency
Ann M. Martin

Baby-Sitters Club Stacey McGill, Super Sitter
Ann Martin

Even Little Kids Get Diabetes
Connie White Pirner;
Illustrated by Nadine Bernard Wescott

In Control: A Guide for Teens With Diabetes
Jean Betschart, M.S.N., R.N., C.D.E. and Susan Thom, R.D., L.D.,C.D.E.

It's Time to Learn About Diabetes
Jean Betschart, M.S.N., R.N., C.D.E

A Magic Ride in Foozbah-Land: An Inside Look at Diabetes
Jean Betschart, M.N., R.N., C.D.E.;
Illustrated by Jackie Urbanovic

My Sister Rose Has Diabetes
Monica Driscoll Beatty;
Illustrated by Kathy Parkinson

Rufus Comes Home
Rufus, The Bear with Diabetes
Kim Gosselin

Sugar Was My Best Food: Diabetes and Me
Carol Antoinette Peacock, Adair Gregory and
Kyle Carney Gregory; Illustrated by Mary Jones

Taking Diabetes to School
Kim Gosselin

Diabetes: A Guide to Living Well (Updated and Revised Edition)
Gary Arsham, M.D., Ph.D. and Ernest Lowe

The Diabetes Sports & Exercise Book
Claudia Graham, June Bierman and Barbara Toohey

Managing Your Child's Diabetes
Robert W. Johnson,IV, Sale Johnson, Casey Johnson and Susan Kleinman

My Personal Health Diary-
Juvenile Diabetes Research Foundation

Parenting a Diabetic Child
Gloria Loring

Psyching Out Diabetes: A Positive Approach to Your Negative Emotions
Richard R. Rubin, June Bierman and Barbara Toohey

The Uncomplicated Guide to Diabetes Complications
Marvin Levin, MD and Michael Pfeifer, MD

Understanding Insulin Dependent Diabetes (Commonly known as the "Pink Panther Book")
H. Peter Chase, MD
Barbara Davis Center for Childhood Diabetes
(To order, call 800-695-2873)

When Diabetes Hits Home
Wendy Satin Rapaport, LCSW, PsyD

Wisdom – "A Kit of Wit & Wisdom for Kids with Diabetes and Their Parents"
American Diabetes Association
(Free for kids with diabetes)

The Diabetes Advisor
American Diabetes Association,
P.O. Box 732, Mt. Morris, IL 61054-8312

Diabetes Forecast
American Diabetes Association,
P.O. Box 363, Mt. Morris, IL 61054-8303

Diabetes Interview
P.O. Box 469050, Escondido, CA 92046

Diabetes Self-Management
P.O. Box 51125, Boulder CO 80323-1125

Take Charge of Your Diabetes
Illinois Department of Human Services, Division of Community Health Prevention, Bureau of Family Nutrition, Illinois Diabetes Control Program,
535 West Jefferson Street, 3rd Floor
Springfield, IL 62702

Voice of the Diabetic
811 Cherry Street, Suite 309
Columbia, Missouri 65201

The following videos are available on a loan basis from the Montana Diabetes Project (406-444-6677):

Care of Children with Diabetes in Child Care and School Settings
- Skill Tape (36 minutes)
- Skill and Evaluation Tape (19 minutes)

Diabetes: A Teacher's Responsibility (15 minutes)

Treating Diabetes Emergencies: What you Need To Know (8 minutes)

Diabetes in Your School or Child Care Center (11 minutes)

Classmates with Diabetes

Taking Diabetes To School (35 minutes)

Montana Diabetes Project Website:
http://ahec.montana.edu/diabetes